STATE OF NEW HAMPSHIRE

Impairments Added to the 2016 303(d) List of Threatened or Impaired Waters

May 8, 2017

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STATE OF NEW HAMPSHIRE
DEPARTMENT OF ENVIRONMENTAL SERVICES
29 HAZEN DRIVE
CONCORD, N.H. 03301

CLARK B. FREISE
ASSISTANT COMMISSIONER

EUGENE FORBES, P.E.
DIRECTOR
WATER DIVISION

Prepared by:
Ken Edwardson

May 8, 2017

Printed on Recycled Paper

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Introduction

In accordance with Section 303(d) of the federal Clean Water Act, States must prepare a list of impaired waters that require a Total Maximum Daily Load study every two years (i.e., the 303(d) List). The last approved 303(d) List was prepared by the New Hampshire Department of Environmental Services (NHDES) in 2012. A final of the 2014 Section 303(d) List of impaired waters was submitted to the US Environmental Protection Agency (USEPA) on March 27, 2017. Downloadable copies of the past list as well as the draft 2016 list are available on the NHDES website for review (http://des.nh.gov/organization/divisions/water/wmb/swqa/index.htm). This document provides a list of all surface waters and parameter combinations that were added as impairments on the 2016 303(d) List and the reasons why they were added.

Assessment outcomes cover a spectrum from very good to very bad coded as an alpha numeric scale that provides additional distinctions in cases where an impairment exists. In each of the new impairments detailed within this document, the 2014 and 2016 assessment status is highlighted applying the categories in the table below.

		Severe Not Supporting, Severe	Poor Not Supporting, Marginal	Likely Bad Insufficient Information – Potentially Not Supporting	No Data No Data	Likely Good Insufficient Information – Potentially Full Supporting	Marginal Full Support, Marginal	Good Full Support, Good
CATEGORY	**Description**							
*Category 2	Meets standards						2-M or 2-OBS	2-G
Category 3	Insufficient Information			3-PNS	3-ND	3-PAS		
Category 4	Does not Meet Standards;							
4A	TMDL Completed	4A-P	4A-M or 4A-T					
4B	Other enforceable measure will correct the issue.	4B-P	4B-M or 4B-T					
4C	Non-pollutant (i.e. exotic weeds)	4C-P	4C-M					
Category 5	TMDL Needed	5-P	5-M or 5-T					

* "Category 1" only exists at the Assessment Unit Level.

Bacteria – Beaches

OPECHEE LAKE BOND BEACH (NHLAK700020201-06-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
OPECHEE LAKE BOND BEACH	NHLAK700020201-06-02	Escherichia coli	Laconia	3-PNS	5-P

2016: The city of Laconia decided to stop sampling for *E.coli* at the beaches of Opechee Lake in 2015 and there were no samples taken in 2016. There have been three exceedences of the geometric mean criteria, occurring on August 23 and 28, 2013, and another on August 19, 2015. Six samples exceeded grab sample criteria with three of those grab samples over the MAGEX at the upper detection limit of the lab method without sample dilution, all occurring since 2013. Both the flow and preceding precipitation conditions were not especially elevated during these times with the exception of July 21, 2015, when flow conditions were elevated in the Tamworth region of the state. On this date, there was one grab sample exceedence. Overall, 23% of geometric mean samples exceeded the criteria, while 10% of grab samples were in exceedence.
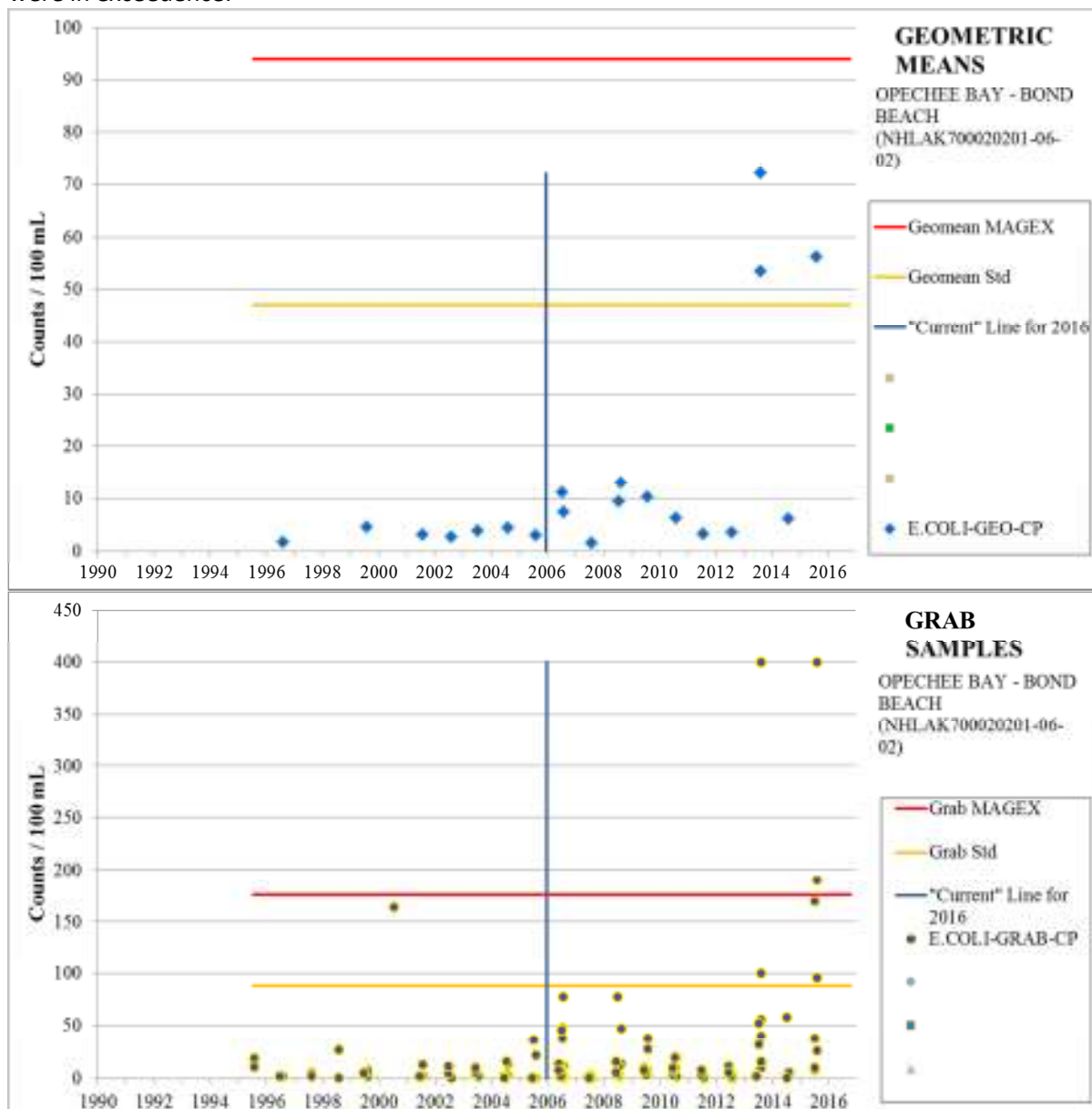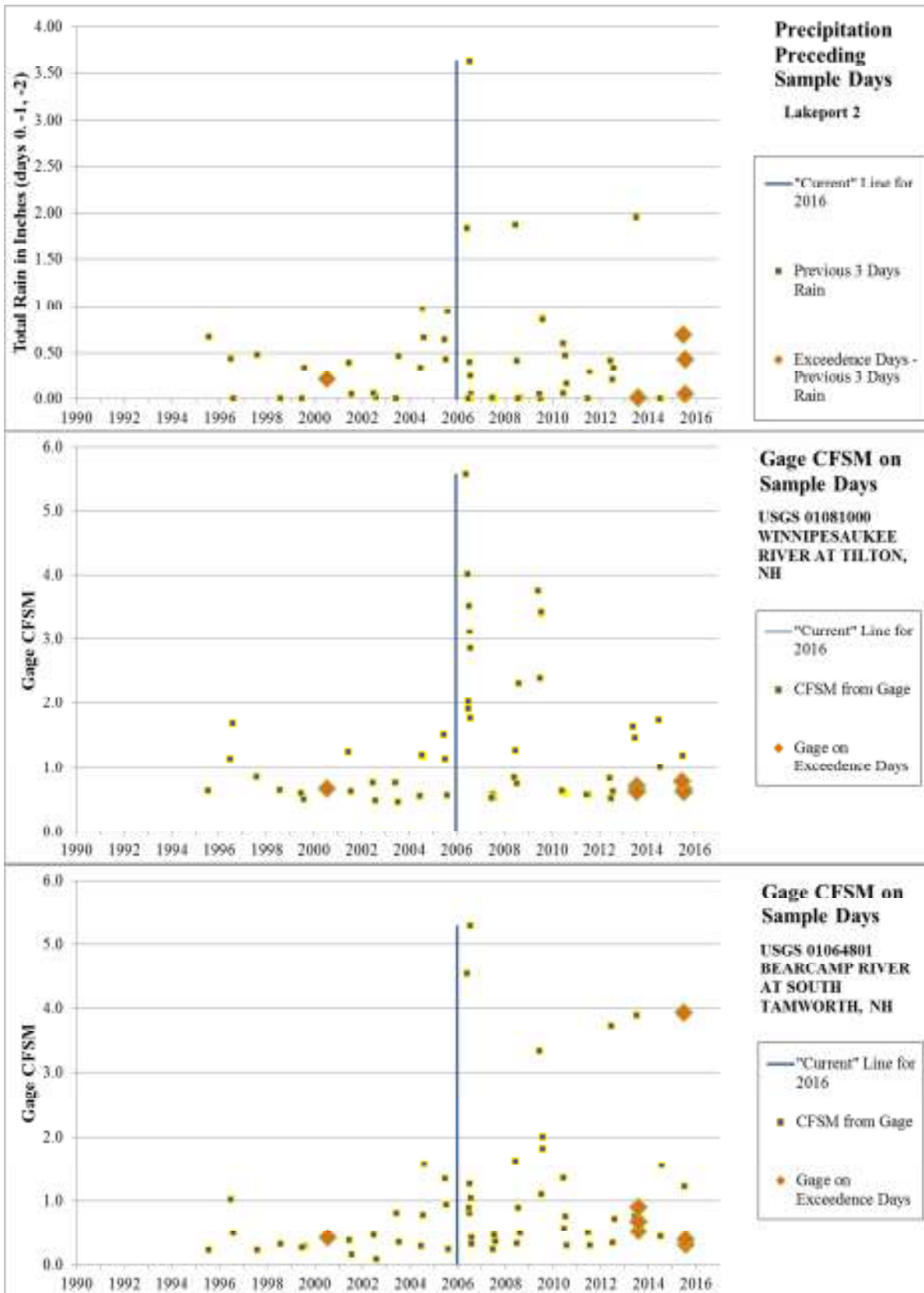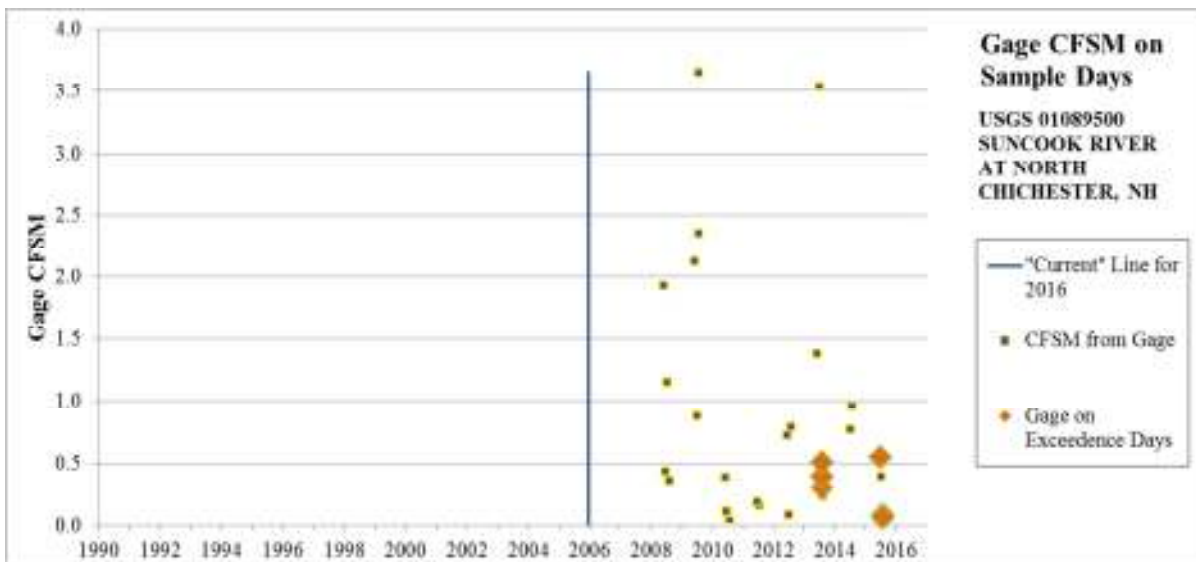
Notes:

E. COLI-GEO-CP = *Escherchia coli* geometric mean calculated from samples collected during the summer critical period.

E. COLI -GEO-NCP = *Escherchia coli* geometric mean calculated from samples collected outside the summer critical period.

E. COLI -GRAB-CP = *Escherchia coli* grab samples collected during the summer critical period.

E. COLI -GRAB-NCP = *Escherchia coli* grab samples collected outside the summer critical period.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

Bacteria – Non-Beaches

AMMONOOSUC RIVER DAM POND (NHIMP801030506-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
AMMONOOSUC RIVER DAM POND	NHIMP801030506-02	*Escherichia coli*	Bath	3-PNS	5-M

Four geometric means are included in the 2016 assessment. Two of these are above the geometric mean water quality criteria (126 cts./100 ml). Two individual samples (8/4/2015, 6/26/2012) are above the single sample water quality criteria (406 cts./100 ml). Streamflow (gage 01137500) and rainfall (Jefferson, NH; USC00274329) records indicate bacteria measurements over the grab sample criteria are associated with high streamflows (>3 cfsm) and recent rainfall (>0.40") while the geometric means incorporate a mix of flow conditions. All data collected at 04-AMM.

GEOMETRIC MEANS

AMMONOOSUC RIVER DAM POND (NHIMP801030506-02)

- Geomean MAGEX
- Geomean Std
- "Current" Line for 2016
- E.COLI-GEO-CP

GRAB SAMPLES

AMMONOOSUC RIVER DAM POND (NHIMP801030506-02)

- Grab MAGEX
- Grab Std
- "Current" Line for 2016
- E.COLI-GRAB-CP
- E.COLI-GRAB-NCP

Gage CFSM on Sample Days

USGS 01137500 AMMONOOSUC RIVER AT BETHLEHEM

- "Current" Line for 2016
- CFSM from Gage
- Gage on Exceedence Days

Notes:

E. COLI-GEO-CP = *Escherchia coli* geometric mean calculated from samples collected during the summer critical period.

E. COLI -GEO-NCP = *Escherchia coli* geometric mean calculated from samples collected outside the summer critical period.

E. COLI -GRAB-CP = *Escherchia coli* grab samples collected during the summer critical period.

E. COLI -GRAB-NCP = *Escherchia coli* grab samples collected outside the summer critical period.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

EXETER RIVER (NHRIV600030803-05)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
Exeter River	NHRIV600030803-05	*Escherichia coli*	Brentwood	3-PNS	5-M

In the current assessment period there are 13 critical period grab samples and three geometric means calculated resulting in one grab sample exceedance (570 cts/100mL) and two geometric mean exceedences (146.5, 168.5 cts/100mL). All samples in the current assessment period are from station 15-EXT which is located in a residential area and does not appear to be linked to rain or flow conditions. This station is part of the trend river monitoring project. Exeter River (NHRIV600030803-05) assessment category changed from 3-PNS to 5-M based on data collected in the current assessment period.

GRAB SAMPLES

EXETER RIVER
(NHRIV600030803-05)

— Grab MAGEX
— Grab Std
— "Current" Line for 2016
■ E.COLI-GRAB-CP
■ E.COLI-GRAB-NCP

Gage CFSM on Sample Days

USGS 01073587
EXETER RIVER AT HAIGH ROAD, NEAR

— "Current" Line for 2016
■ CFSM from Gage
♦ Gage on Exceedence Days

Precipitation Preceding Sample Days

Greenland

— "Current" Line for 2016
■ Previous 3 Days Rain
♦ Exceedence Days Previous 3 Days Rain

Notes:

E. COLI-GEO-CP = *Escherchia coli* geometric mean calculated from samples collected during the summer critical period.

E. COLI -GEO-NCP = *Escherchia coli* geometric mean calculated from samples collected outside the summer critical period.

E. COLI -GRAB-CP = *Escherchia coli* grab samples collected during the summer critical period.

E. COLI -GRAB-NCP = *Escherchia coli* grab samples collected outside the summer critical period.
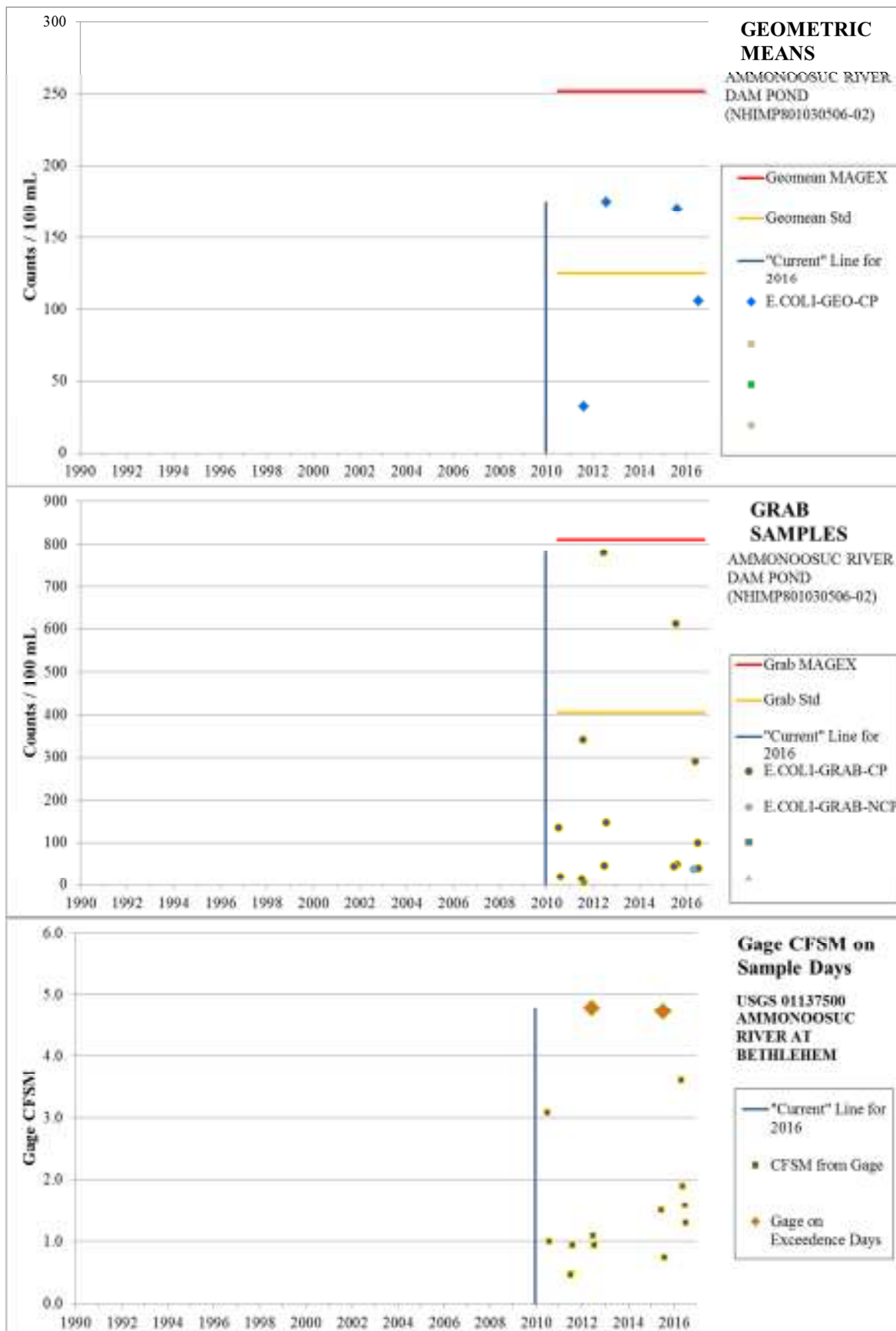"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

HARRY BROOK (NHRIV700060607-15)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
Harry Brook	NHRIV700060607-15	*Escherichia coli*	Goffstown	3-PAS	5-P

In this assessment period there were five geometric means calculated. Two geometric means are above the magnitude of exceedence threshold which is two times the water quality criteria during the critical period and one geometric mean above the magnitude of exceedence during the non-critical period. 40% of grab samples exceeded the magnitude of exceedence threshold. All samples were collected at station 02-HRB. Harry Brook (NHRIV700060607-15) has been changed from assessment category 3-PAS to 5-P.

Notes:

E. COLI-GEO-CP = *Escherchia coli* geometric mean calculated from samples collected during the summer critical period.

E. COLI -GEO-NCP = *Escherchia coli* geometric mean calculated from samples collected outside the summer critical period.

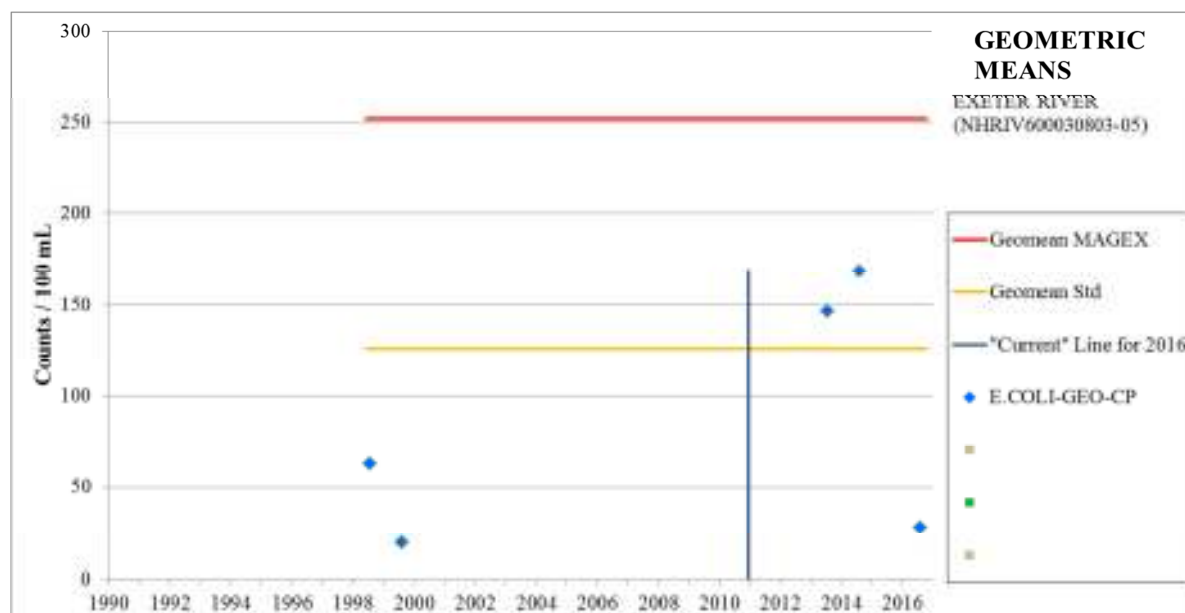E. COLI -GRAB-CP = *Escherchia coli* grab samples collected during the summer critical period.

E. COLI -GRAB-NCP = *Escherchia coli* grab samples collected outside the summer critical period.
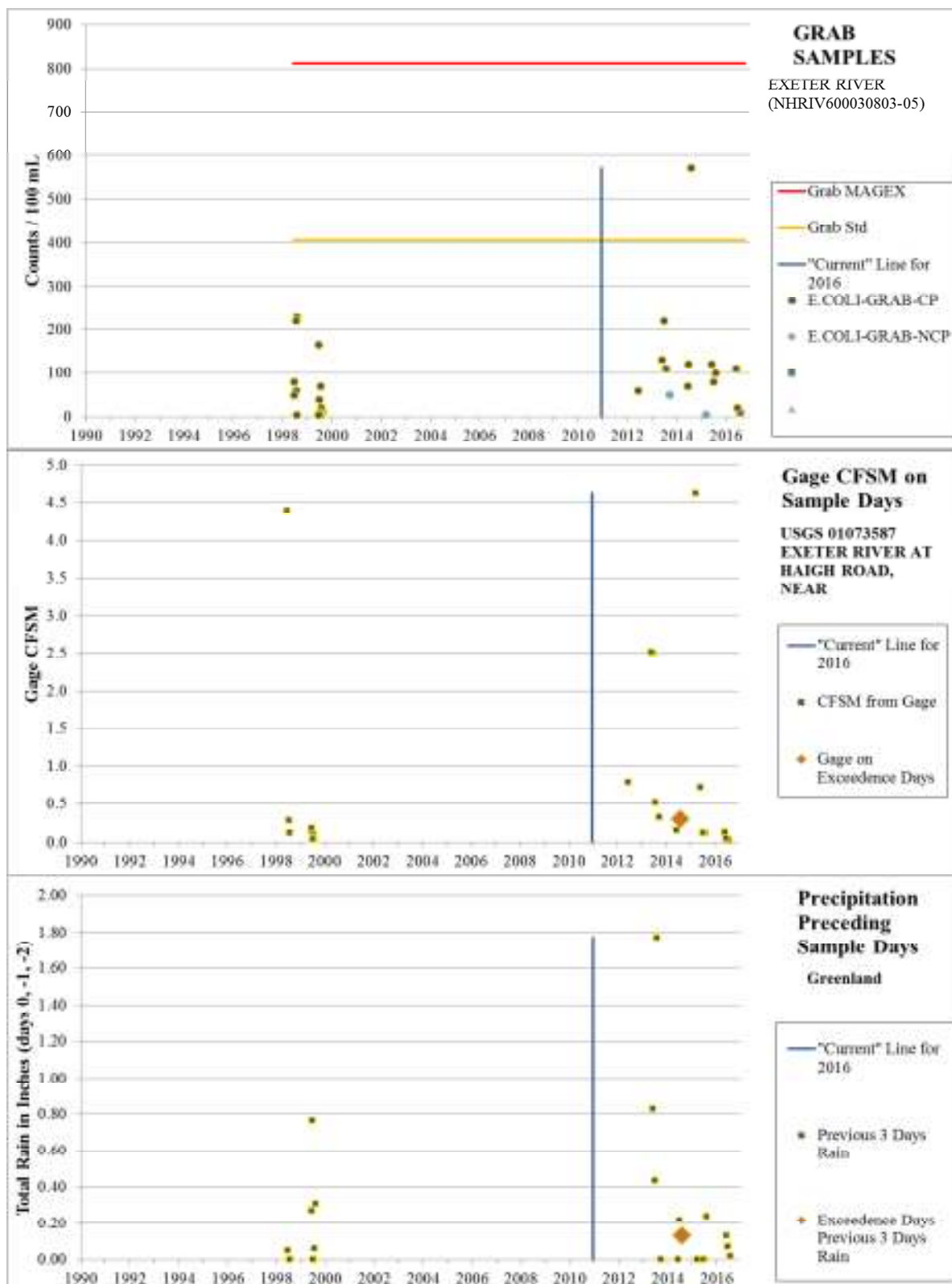
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

FLAT MEADOW BROOK (NHRIV700060502-05)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
FLAT MEADOW BROOK	NHRIV700060502-05	*Escherichia coli*	Northwood	2-G	5-P

In current assessment period 4 out of 13 (31%) grab samples exceeded the standard including one exceeding the magnitude of exceedence threshold which is two times the water quality criteria. High results from grab samples all occur after some rainfall in the past three days from station NORNOR3. Flat Meadow Brook (NHRIV700060502-05) has been changed from assessment category 2-G to 5-P.

Notes:

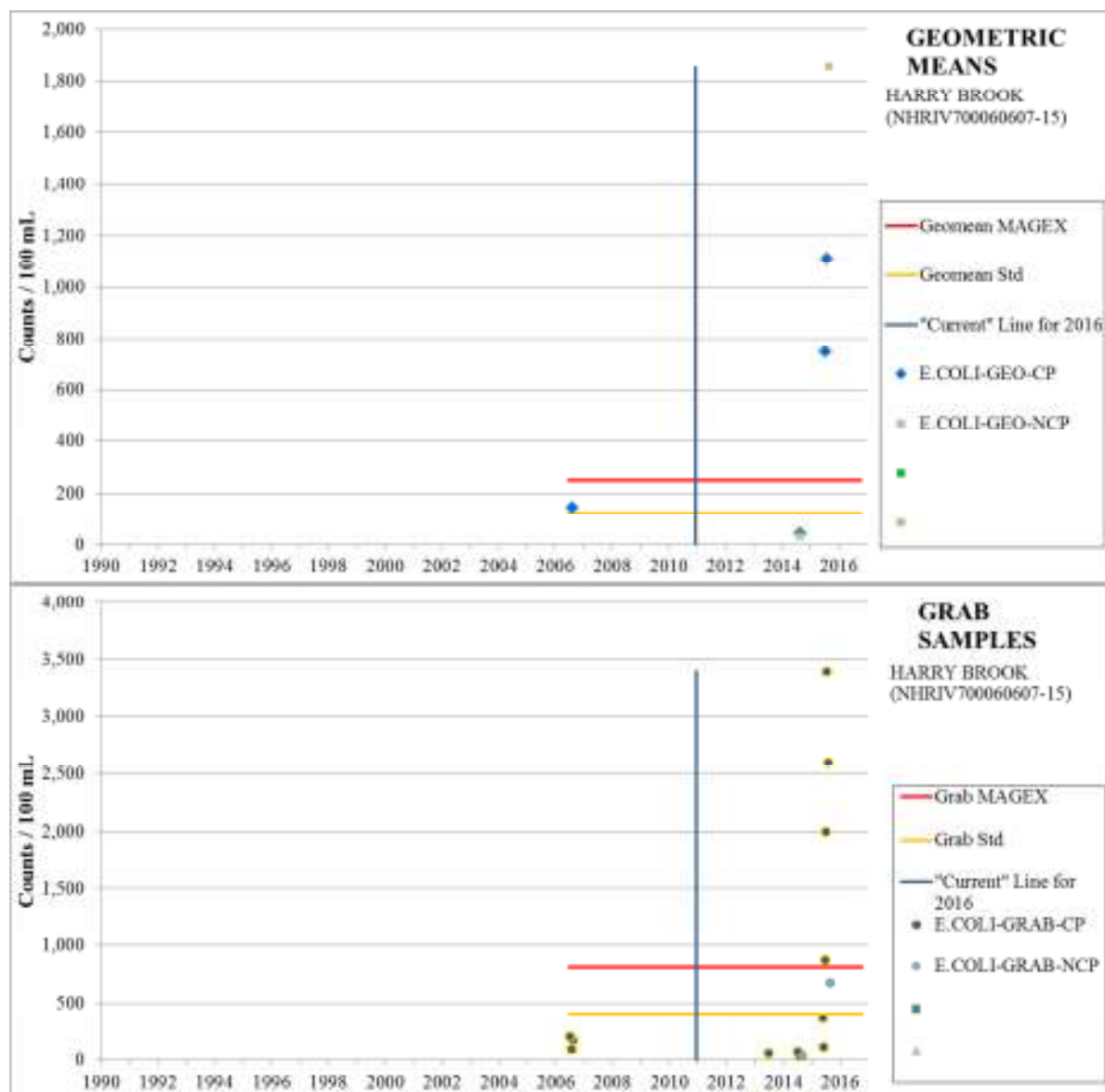E. COLI -GRAB-CP = *Escherchia coli* grab samples collected during the summer critical period.

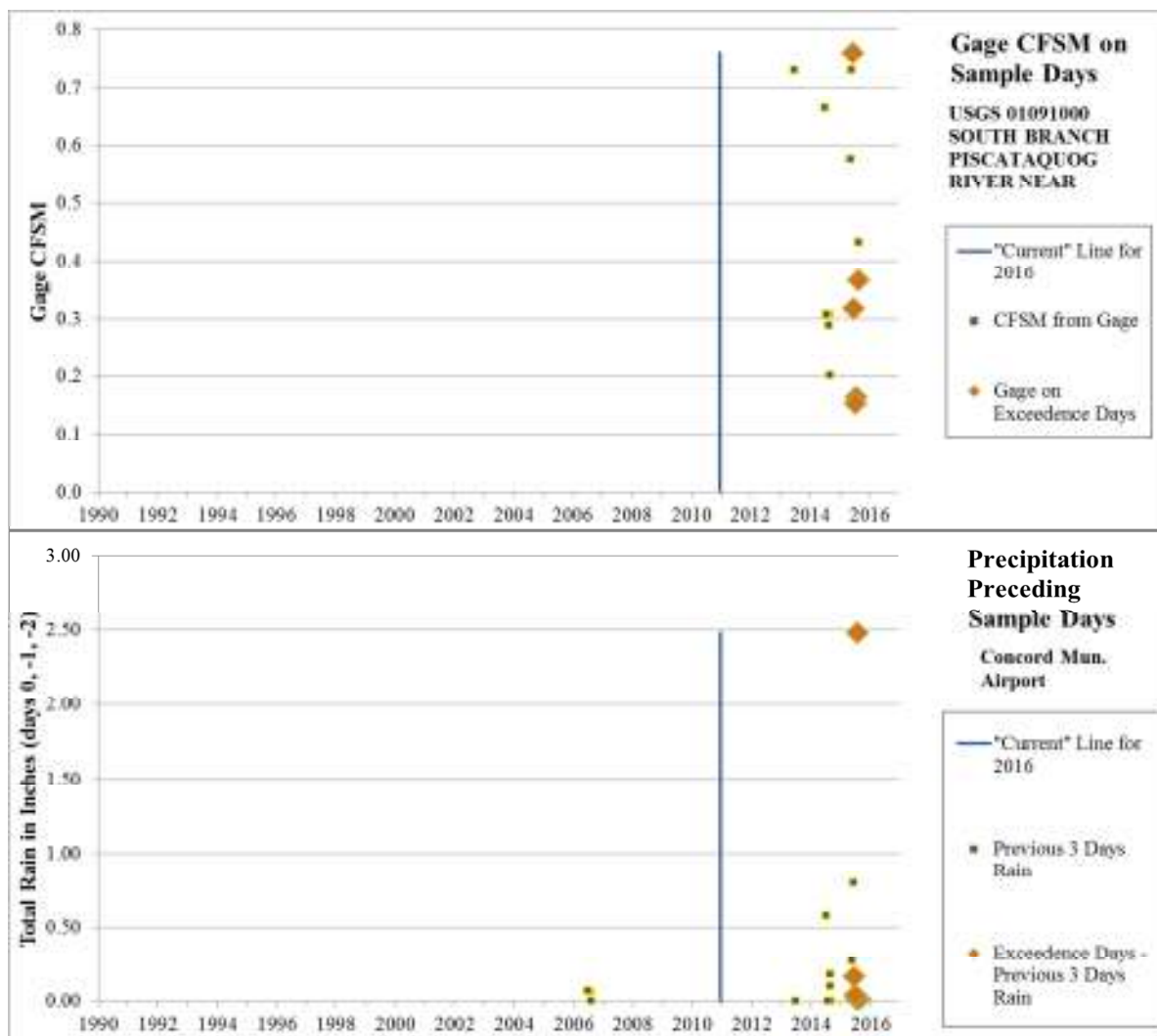E. COLI -GRAB-NCP = *Escherchia coli* grab samples collected outside the summer critical period.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

MINK BROOK (NHRIV801040401-05)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
Mink Brook	NHRIV801040401-05	Escherichia coli	Hanover	3-PNS	5-P

There are four geometric means in current assessment period, 50% are above the standard including one geometric mean above the max exceedance. There are two grab samples above the magnitude of exceedance (twice the water quality criteria) that help drive high geometric means. The high grab samples were collected after some rainfall. All current samples were collected at station 01T-MKB, a river trend monitoring station. Mink Brook (NHRIV801040401-05) should change assessment category from 3-PNS to 5-P.
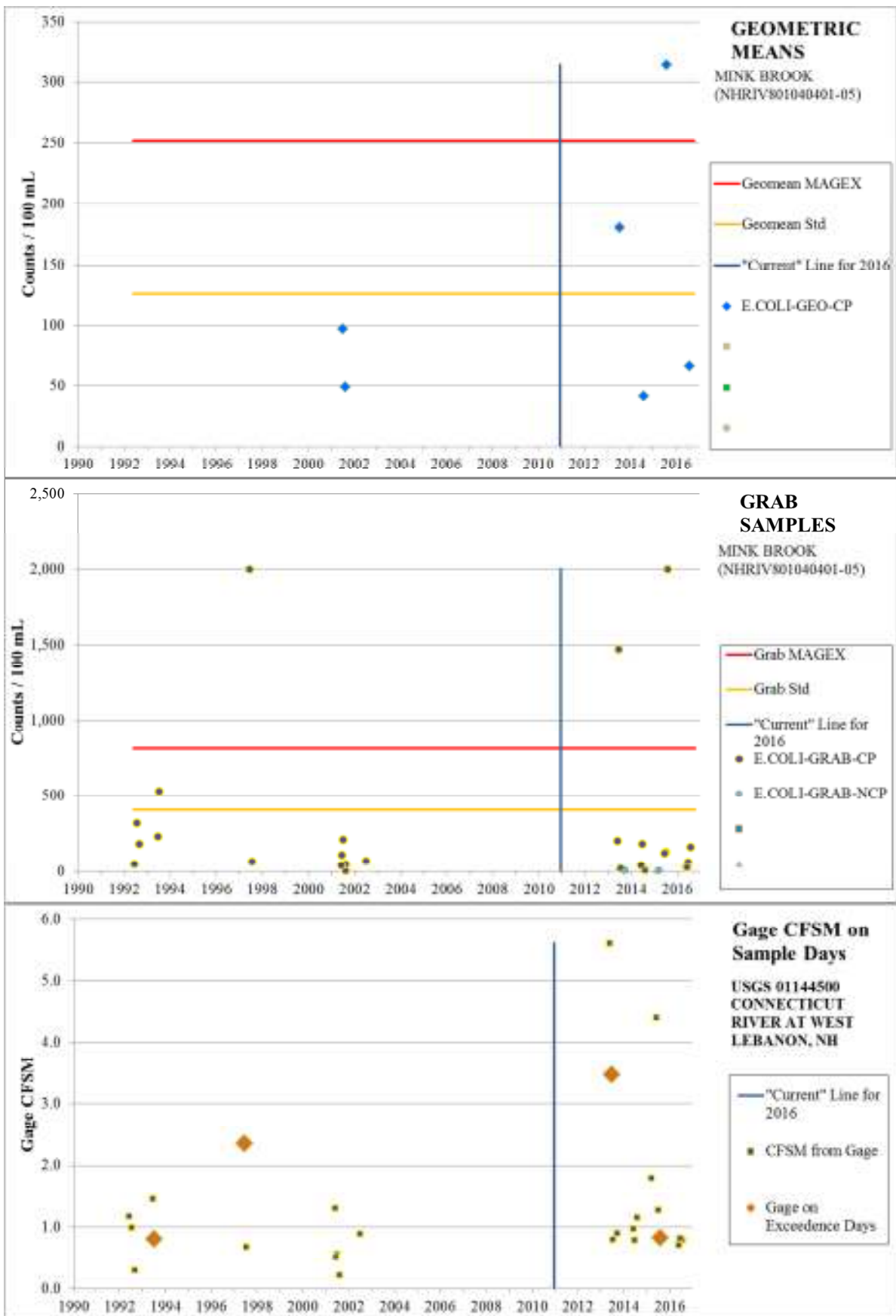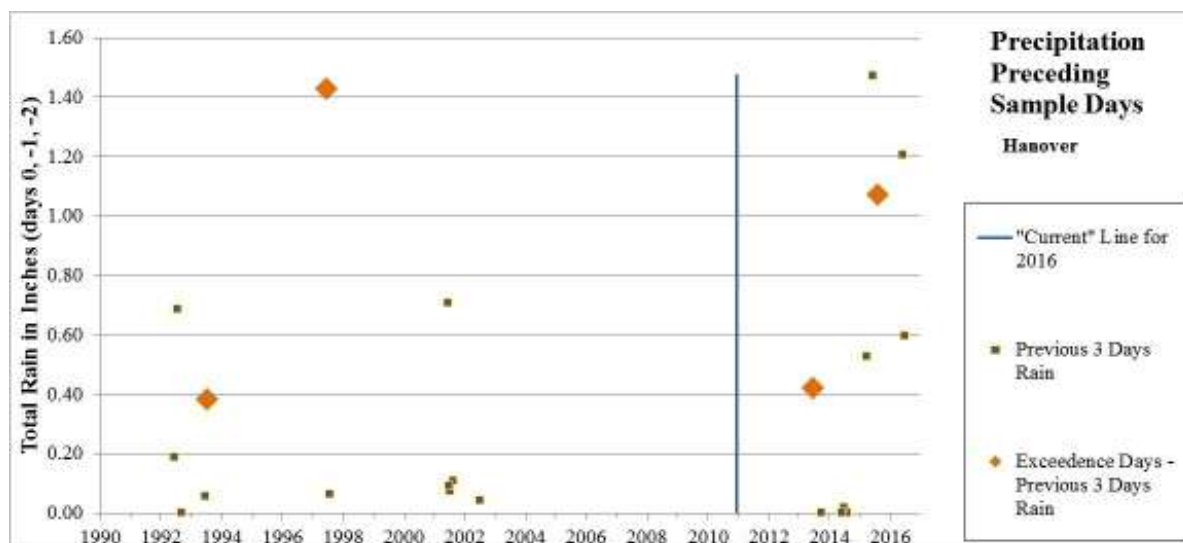
GEOMETRIC MEANS

MINK BROOK (NHRIV801040401-05)

- Geomean MAGEX
- Geomean Std
- "Current" Line for 2016
- E.COLI-GEO-CP

GRAB SAMPLES

MINK BROOK (NHRIV801040401-05)

- Grab MAGEX
- Grab Std
- "Current" Line for 2016
- E.COLI-GRAB-CP
- E.COLI-GRAB-NCP

Gage CFSM on Sample Days

USGS 01144500 CONNECTICUT RIVER AT WEST LEBANON, NH

- "Current" Line for 2016
- CFSM from Gage
- Gage on Exceedence Days

Notes:

E. COLI-GEO-CP = *Escherchia coli* geometric mean calculated from samples collected during the summer critical period.

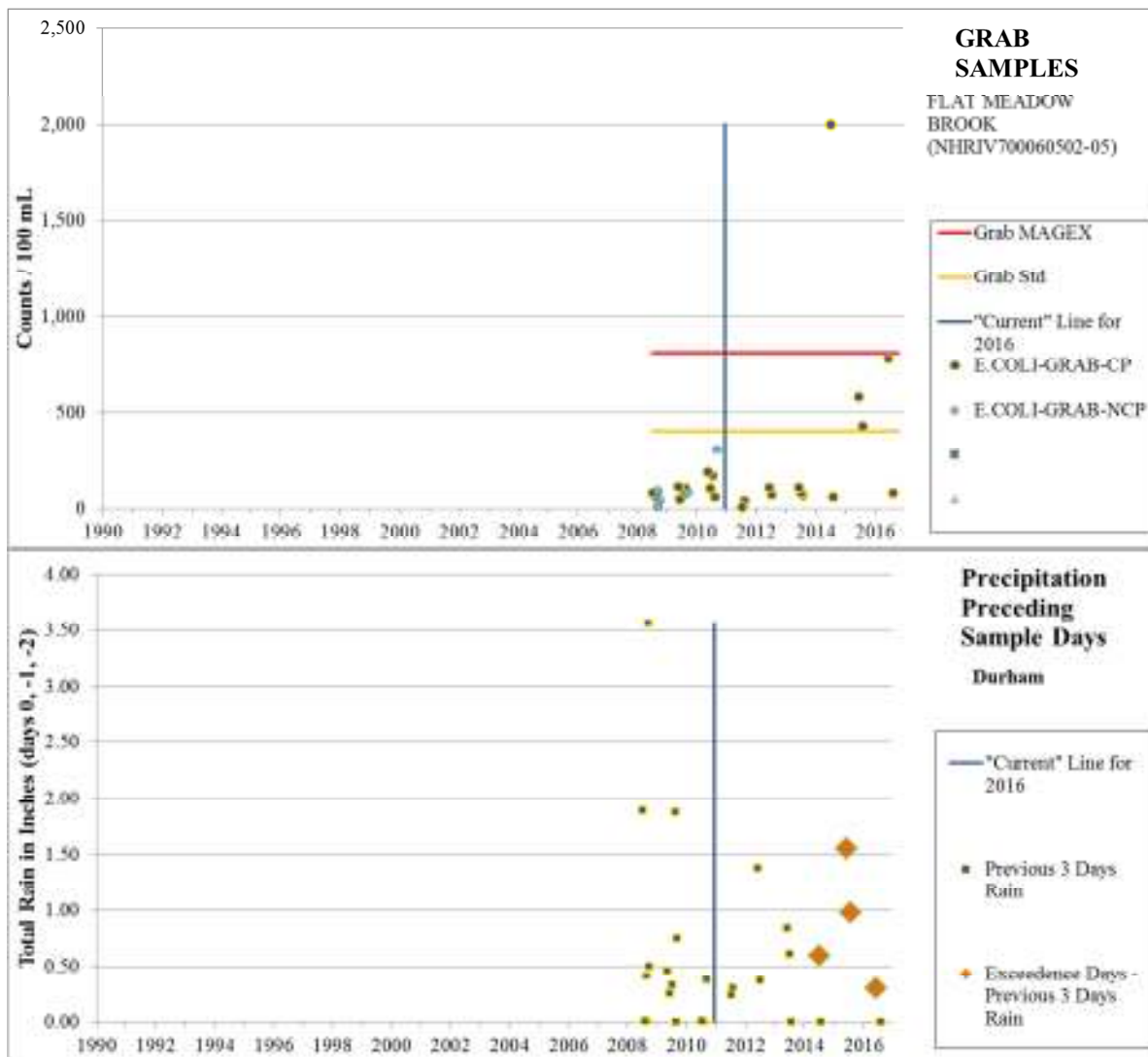E. COLI -GRAB-CP = *Escherchia coli* grab samples collected during the summer critical period.

E. COLI -GRAB-NCP = *Escherchia coli* grab samples collected outside the summer critical period.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

Dissolved Oxygen

PEQUAWKET BROOK (NHRIV600020303-07)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
PEQUAWKET BROOK	NHRIV600020303-07	Dissolved Oxygen (Percent Saturation)	ALBANY	3-PNS	5-P

2016: The brook continues to have dissolved oxygen saturations below 65% at station GM-2 during the current assessment period (2011-2016). The non-support samples collected during the current assessment period were collected with flows ranging from 0.58 – 1.98 CFSM at the Saco River gauge (01064500) and with 3-day rainfall totals between 0.01 and 4.76 inches.
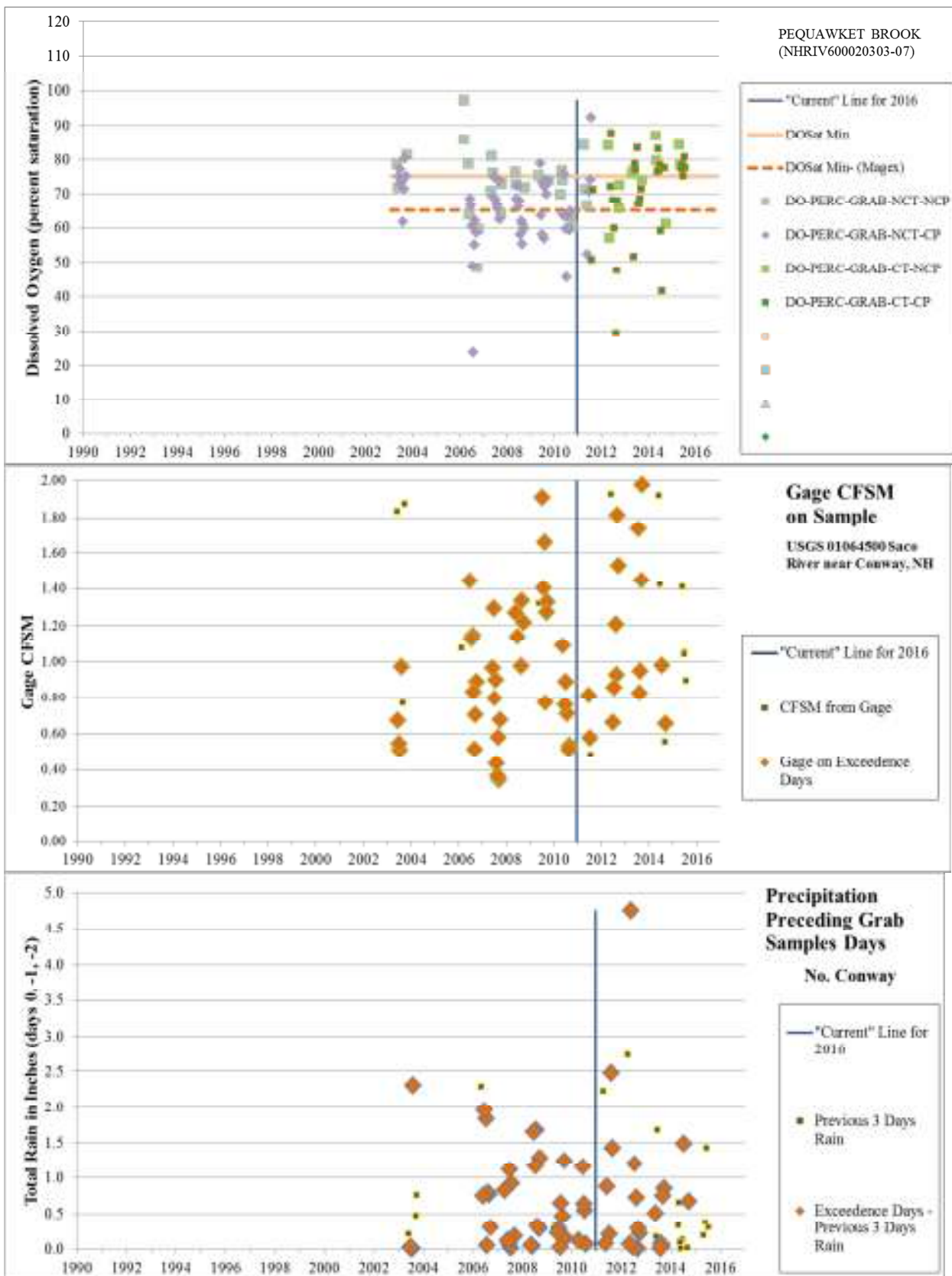
PEQUAWKET BROOK
(NHRIV600020303-07)

Gage CFSM
on Sample

USGS 01064500 Saco
River near Conway, NH

Precipitation
Preceding Grab
Samples Days

No. Conway

BROWN BROOK - TO PISCASSIC RIVER (NHRIV600030708-14)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BROWN BROOK - TO PISCASSIC RIVER	NHRIV600030708-14	DISSOLVED OXYGEN (MG/L)	FREMONT	3-PAS	5-P

2016: Class A waterbody. New data collected in 2014 and 2015 at station 10-PIS indicates that the river consistently has dissolved oxygen concentrations below 5.5 mg/L, and occasionally below 4 mg/L. The low dissolved oxygen samples collected during the current assessment period (2011-2016) were collected during flows between 0.04 and 0.16 CFSM at the Exeter River gauge (01073587) and with 3-day rainfall totals between 0.0 and 0.7 inch.
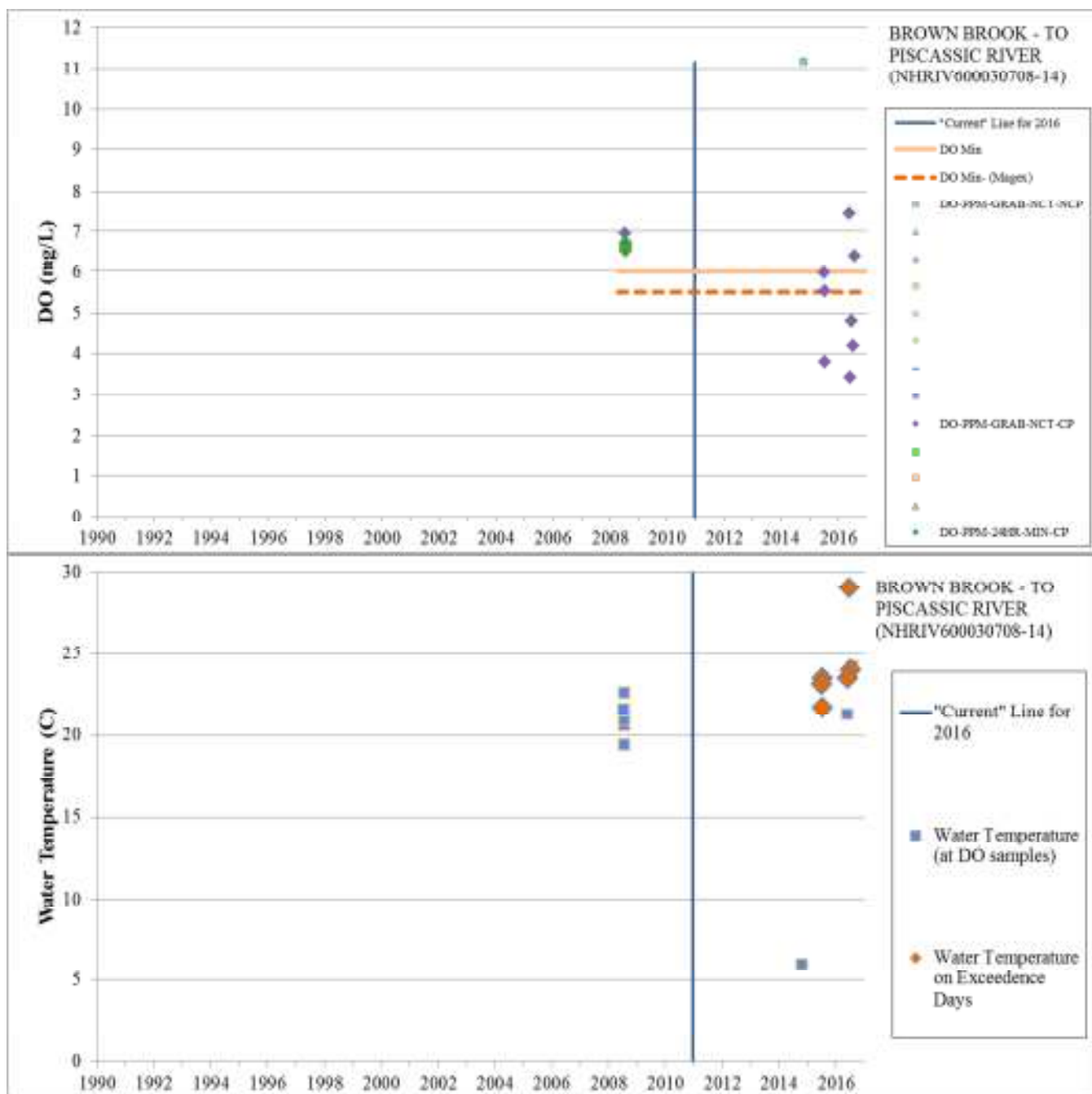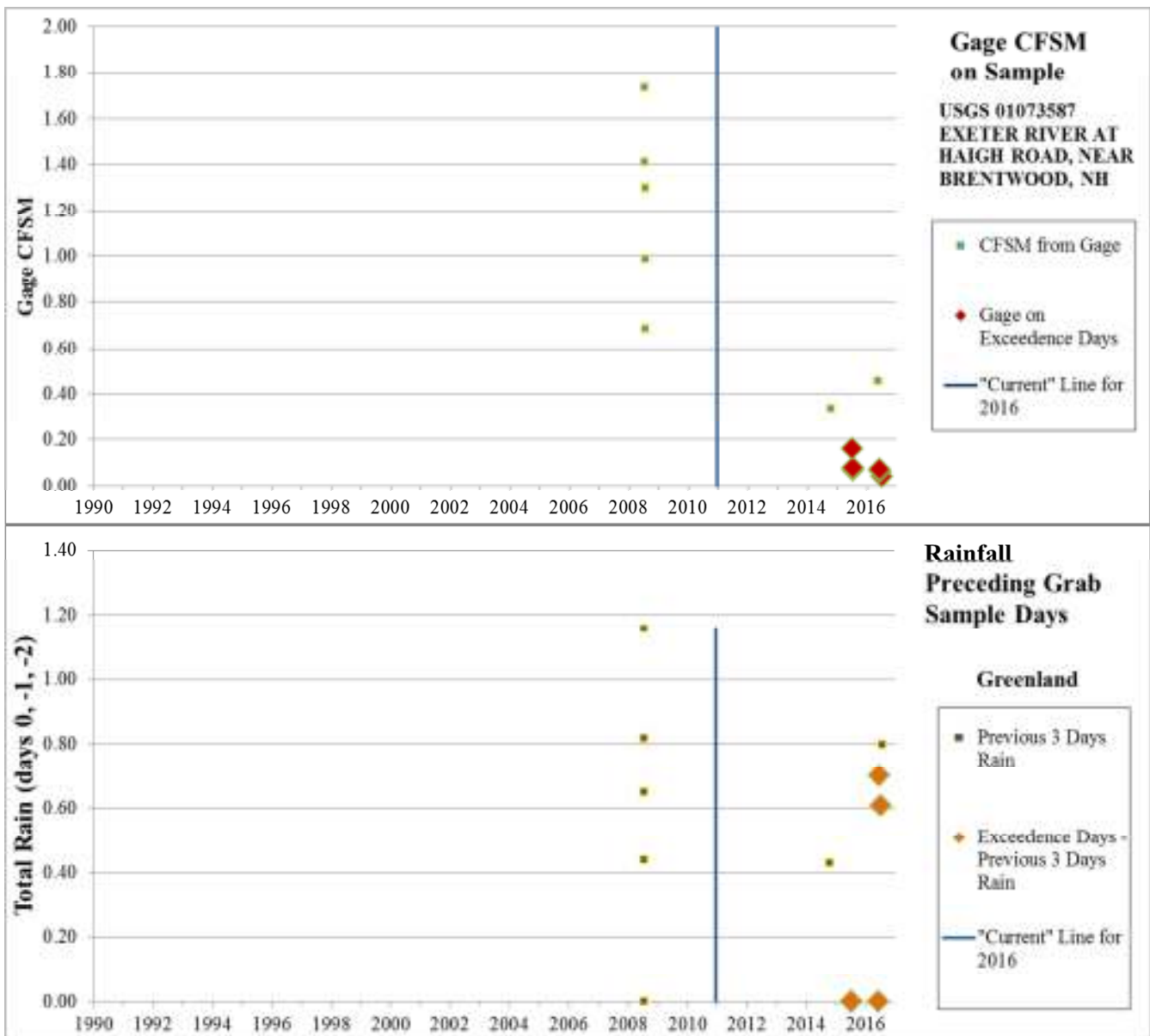
BROWN BROOK - TO PISCASSIC RIVER (NHRIV600030708-14)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BROWN BROOK - TO PISCASSIC RIVER	NHRIV600030708-14	Dissolved Oxygen (Percent Saturation)	FREMONT	3-PAS	5-P

2016: Class A waterbody. New data collected in 2014 and 2015 at station 10-PIS indicates that the brook consistently has dissolved oxygen saturations below 65%, and occasionally below 50%. The low dissolved oxygen samples collected during the current assessment period (2011-2016) were collected during flows between 0.04 and 0.16 CFSM at the Exeter River gauge (01073587) and with 3-day rainfall totals between 0.0 and 0.7 inches.

BROWN BROOK - TO
PISCASSIC RIVER
(NHRIV600030708-14)

— "Current" Line for 2016
— DOSat Min
- - DOSat Min- (Mages)
▪ DO-PERC-GRAB-NCT-CP
+ DO-PERC-GRAB-NCT-CP
▪ DO-PERC-GRAB-CT-NCP
▪ DO-PERC-GRAB-CT-CP
▫
▫
△
● DO-PERC-24H-MEAN-CP

**Gage CFSM
on Sample**

USGS 01073587
EXETER RIVER AT
HAIGH ROAD, NEAR
BRENTWOOD, NH

— "Current" Line for 2016
▪ CFSM from Gage
◆ Gage on Exceedence Days
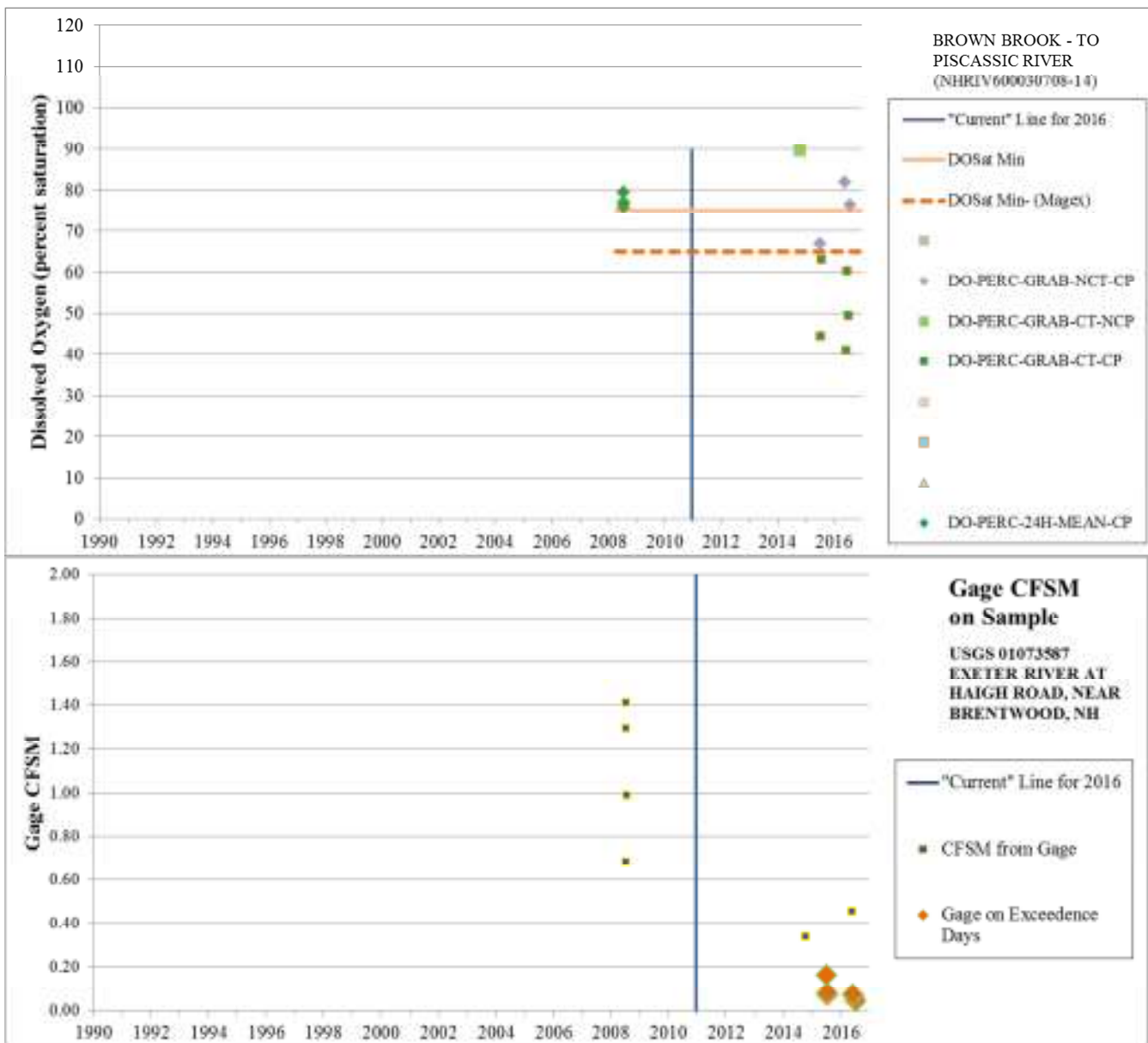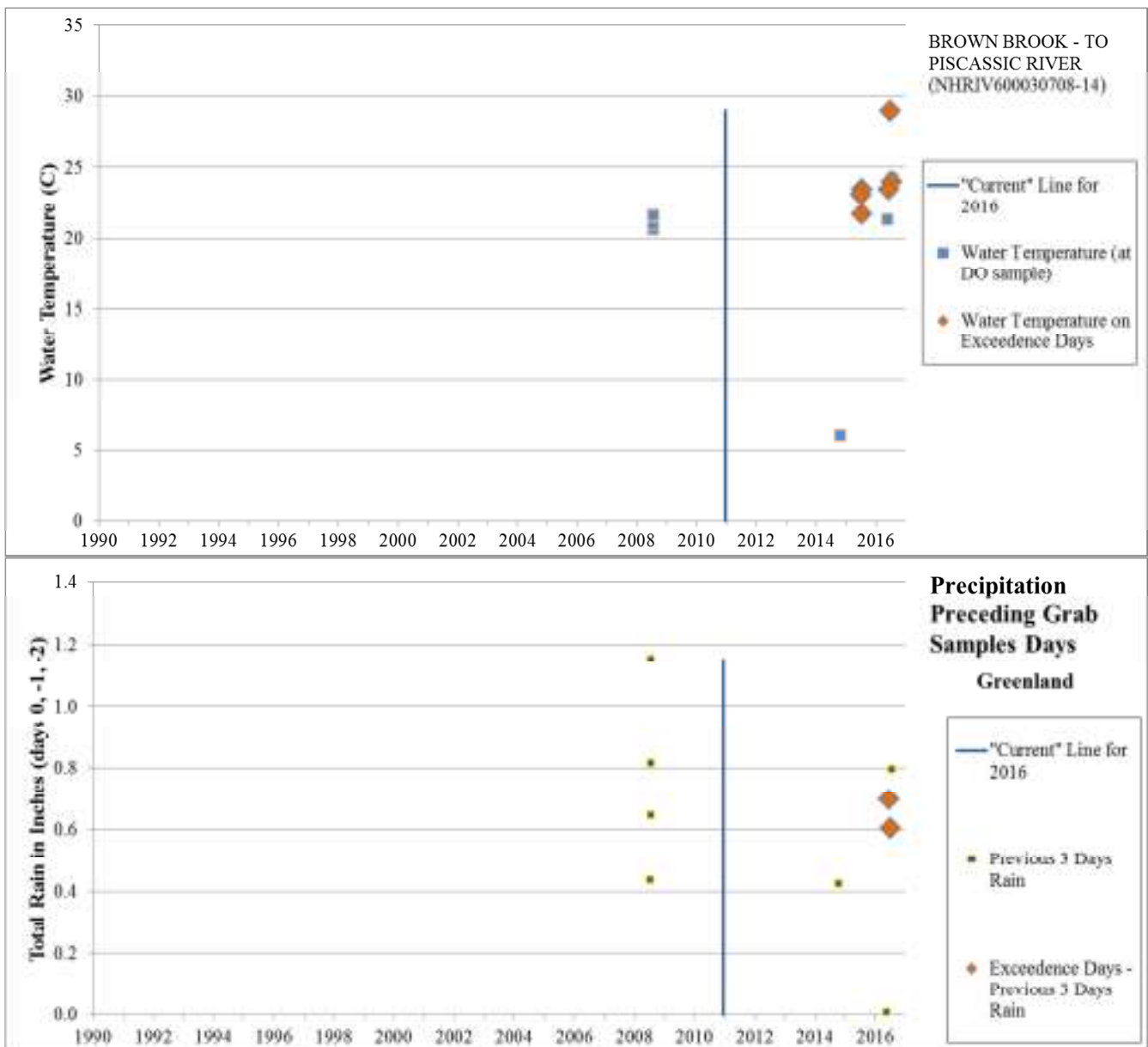
COCHECO RIVER (NHEST600030608-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
COCHECO RIVER	NHEST600030608-01	Dissolved Oxygen (Percent Saturation)	DOVER	3-PNS	5-P

2016: A full parameter level discussion of the rational used to make the assessment determination for this waterbody is provided by assessment zone in the Technical Support Document for the Great Bay Estuary Aquatic Life Use Support Assessments, 2016 305(b) Report/303(d) List
http://des.nh.gov/organization/divisions/water/wmb/swqa/2016/index.htm

WINNICUT RIVER DAM POND (NHIMP600030901-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016

WINNICUT RIVER DAM POND	NHIMP600030901-02	DISSOLVED OXYGEN % SATURATION	GREENLAND	3-PAS	5-P

2016: Class B waterbody. 34 acre impoundment. Samples include 24 hour mean DO % sat values, and multiple grab samples. Exceedences occurred over a range of flow, after rain events, as a range of water temperature conditions, and over a broad range of time of day. n=121 samples since 2006, of which n=23 standard exceedences and ~n=26 MAGEXC dating back to 2006. In the last two years since the 2014 assessment, over 23 sample dates, n=13 MAGEXC and n=2 exceedances of minimum DO% sat threshold. A data logger was deployed in 2015 to measure 24-hr min DO %sat and 8 out of 8 of those samples were MAGEXC.

DO (% saturation) Grab Samples — WINNICUT RIVER DAM POND (NHIMP600030901-02)

Gage CFSM on Sample — USGS 01072800 COCHECO RIVER NEAR ROCHESTER, NH.

Precipitation Preceding Grab Samples Days — Durham

WINNICUT RIVER
DAM POND
(NHIMP600030001-02)

Precipitation
Preceding Grab
Samples Days

Durham

Sample and Max
Depth Recorded
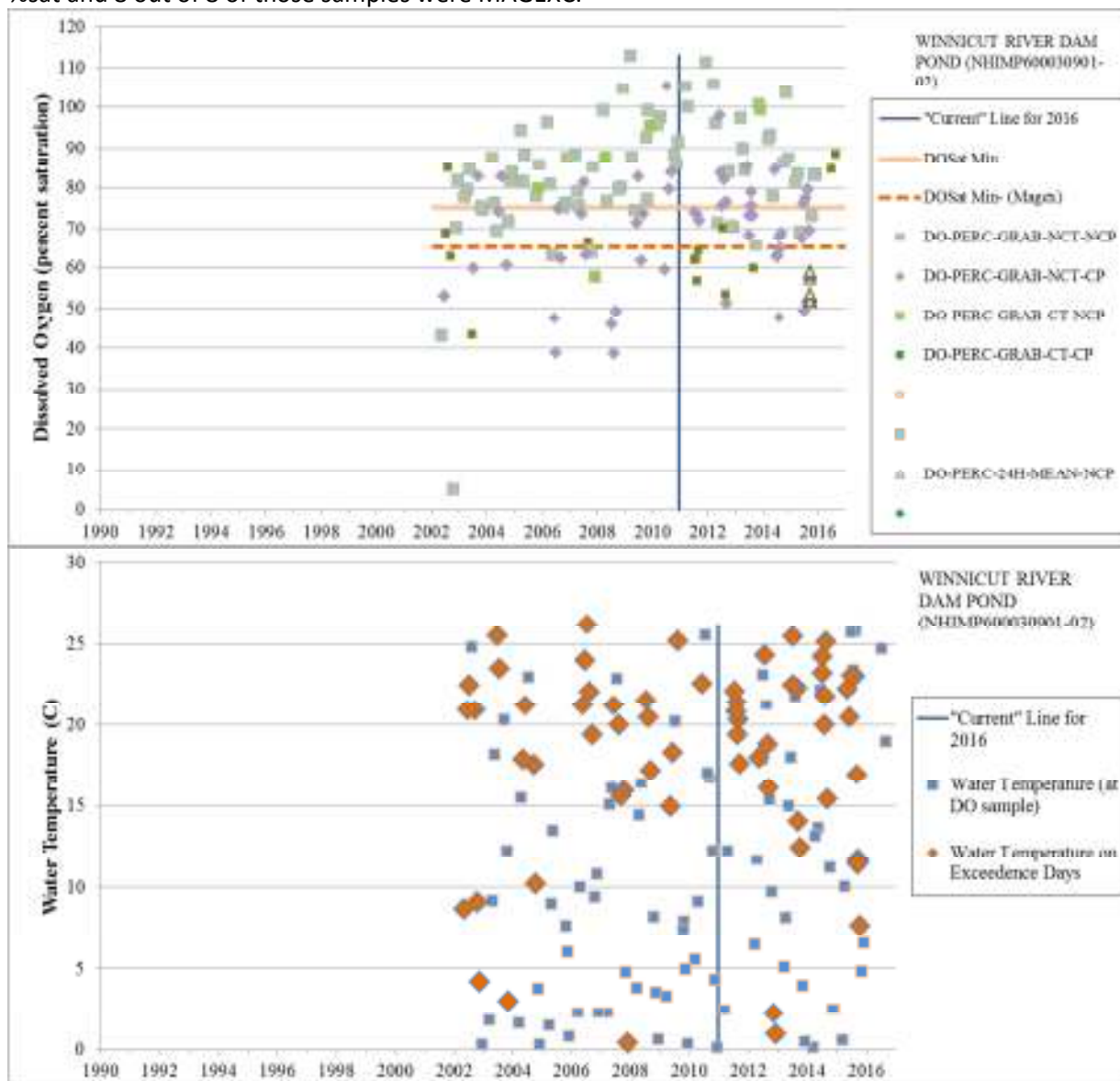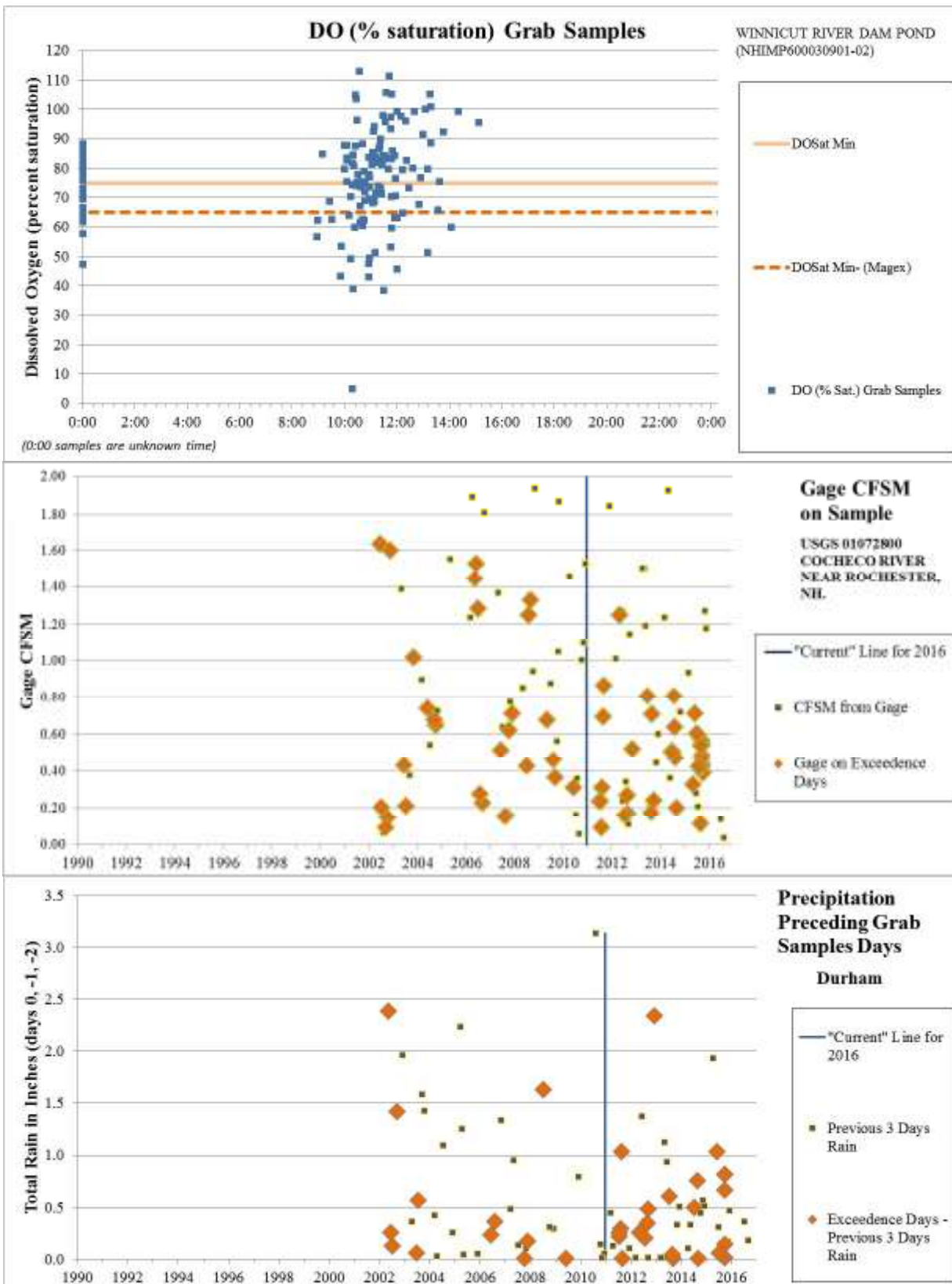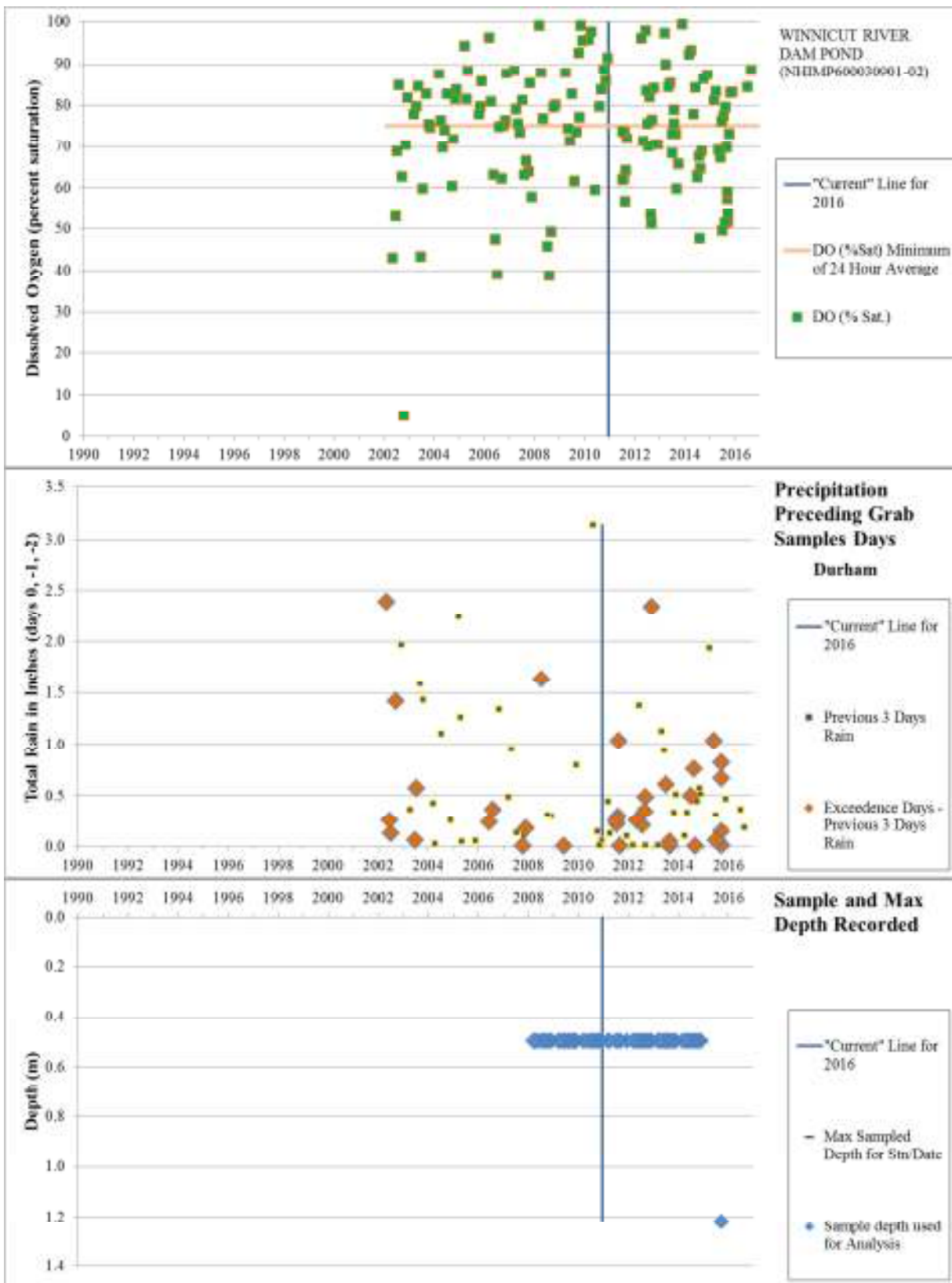
WINNICUT RIVER - BARTON BROOK - MARSH BROOK - THOMPSON BROOK (NHRIV600030901-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
WINNICUT RIVER - BARTON BROOK - MARSH BROOK - THOMPSON BROOK	NHRIV600030901-02	Dissolved Oxygen (Percent Saturation)	GREENLAND	3-PNS	5-M

2016: New data collected during the current assessment period (2011-2016) at stations 02H-TBK, 02-TBK, 05-WNC and 11-WNC indicate that the brook consistently has dissolved oxygen saturations below 65%, and occasionally below 50%. The majority of the low dissolved oxygen occurred at stations 05-WNC and 11-WNC. The low dissolved oxygen samples collected during the current assessment period were collected during flows between 0.01 and 1.49 CFSM at the Exeter River gauge (01073587) and with 3-day rainfall totals between 0.02 and 1.76 inches.
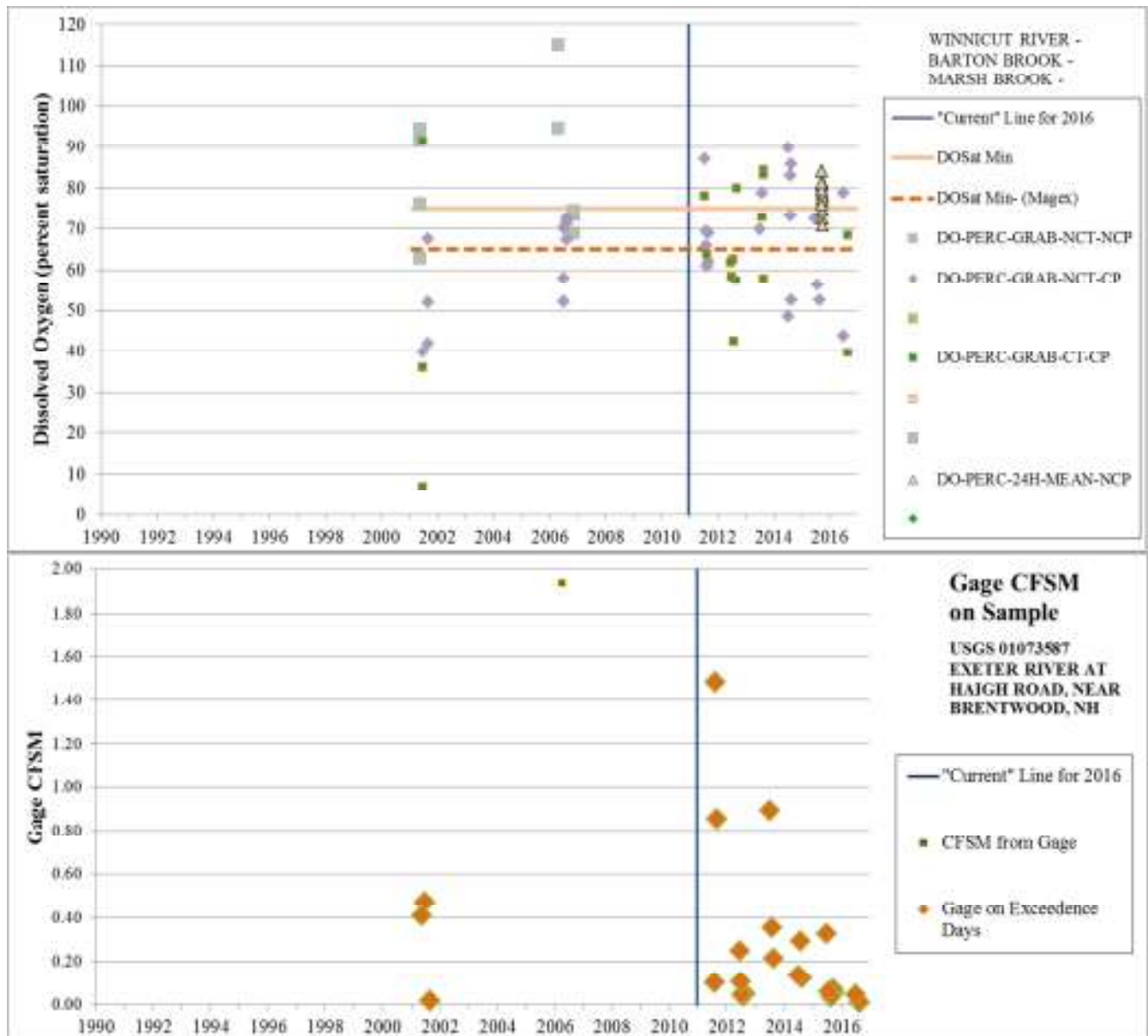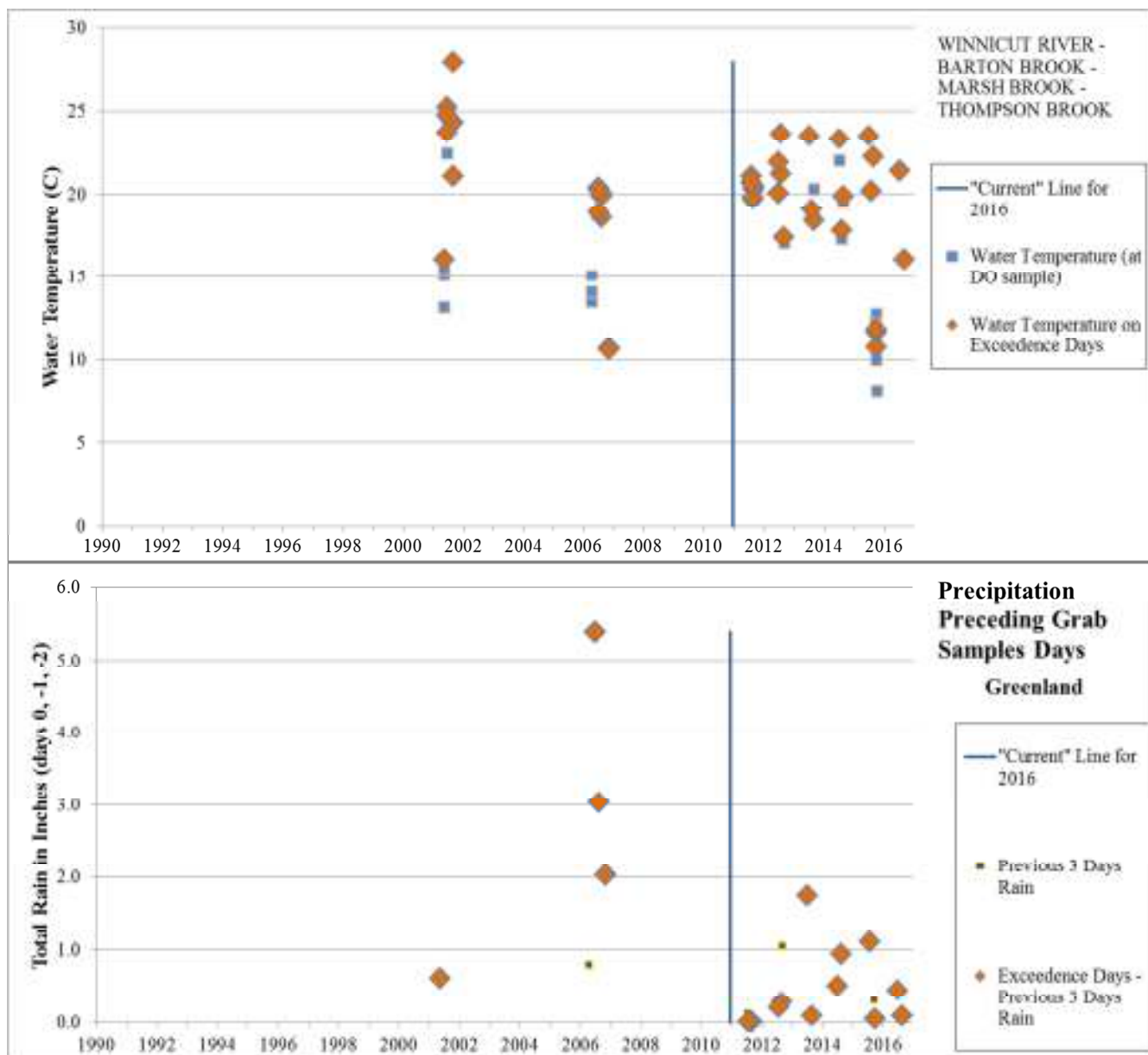
WINNICUT RIVER -
BARTON BROOK -
MARSH BROOK -
THOMPSON BROOK

NORTON BROOK (NHRIV600030901-06)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
NORTON BROOK	NHRIV600030901-06	Dissolved Oxygen (mg/L)	GREENLAND	3-PNS	5-P

2016: New data collected in during the current assessment period (2011-2016) at station 06-NOB indicate that the brook consistently has dissolved oxygen concentrations below 5 mg/L, and occasionally below 4 mg/L. It should be noted that there appears to be a steep declining trend in dissolved oxygen between 2011 and 2016. The low dissolved oxygen samples collected during the current assessment period were collected during flows between 0.03 and 1.18 CFSM at the Exeter River gauge (01073587) and with 3-day rainfall totals between 0.08 and 1.76 inches.

NORTON BROOK
(NHRIV600030901-06)

NORTON BROOK
(NHRIV600030901-06)

NORTON BROOK (NHRIV600030901-06)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
NORTON BROOK	NHRIV600030901-06	Dissolved Oxygen (Percent Saturation)	GREENLAND	3-PAS	5-M

2016: New data collected in during the current assessment period (2011-2016) at station 06-NOB indicate that the brook consistently has dissolved oxygen saturations below 65%, and occasionally below 40%. It should be noted that there appears to be a steep declining trend in dissolved oxygen between 2011 and 2016. The low dissolved oxygen samples collected during the current assessment period were collected during flows between 0.03 and 1.18 CFSM at the Exeter River gauge (01073587) and with 3-day rainfall totals between 0.08 and 1.76 inches.
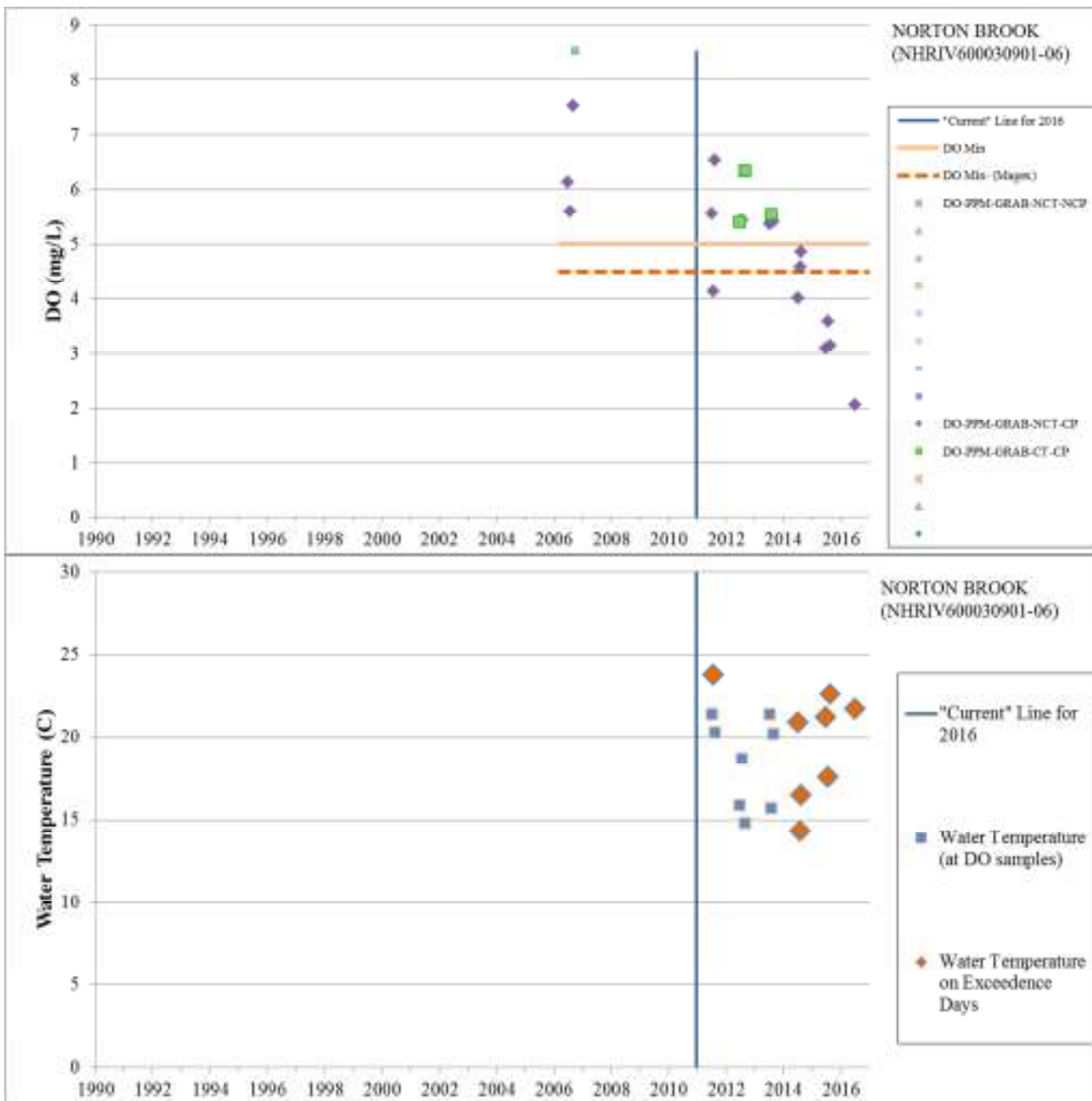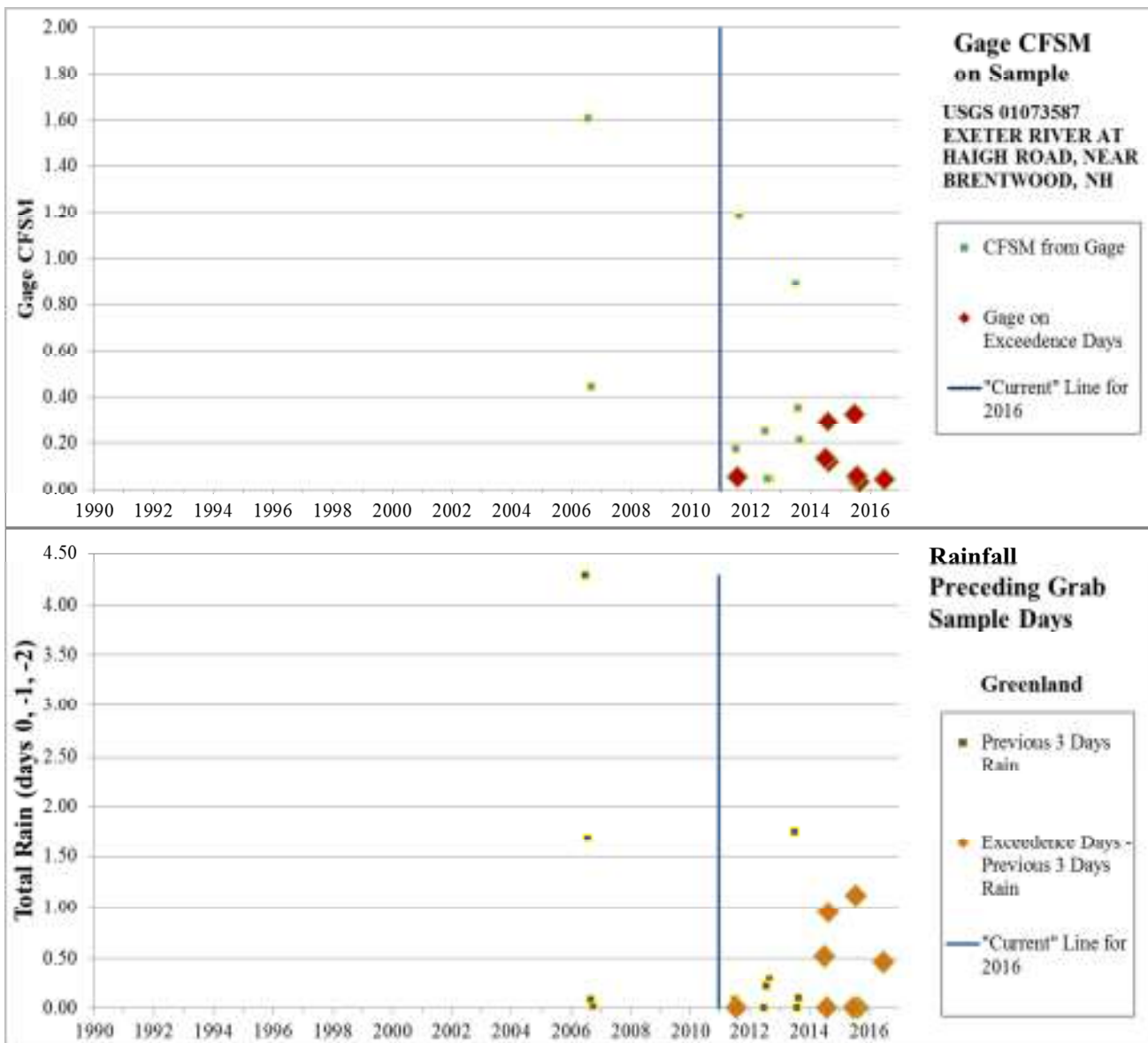
NORTON BROOK
(NHRIV600030901-06)

NORTON BROOK (NHRIV600030901-06)

Precipitation Preceding Grab Samples Days
Greenland
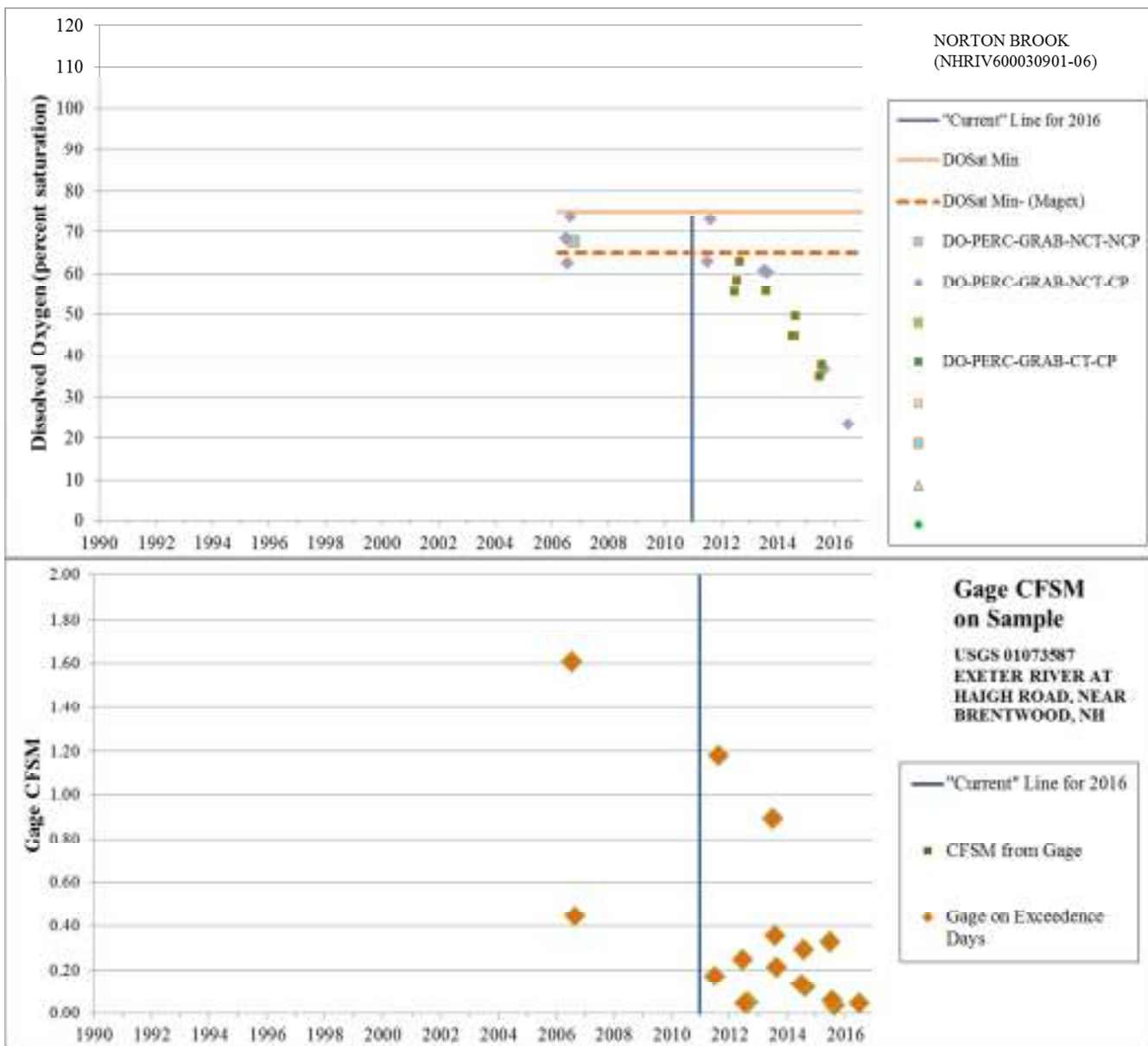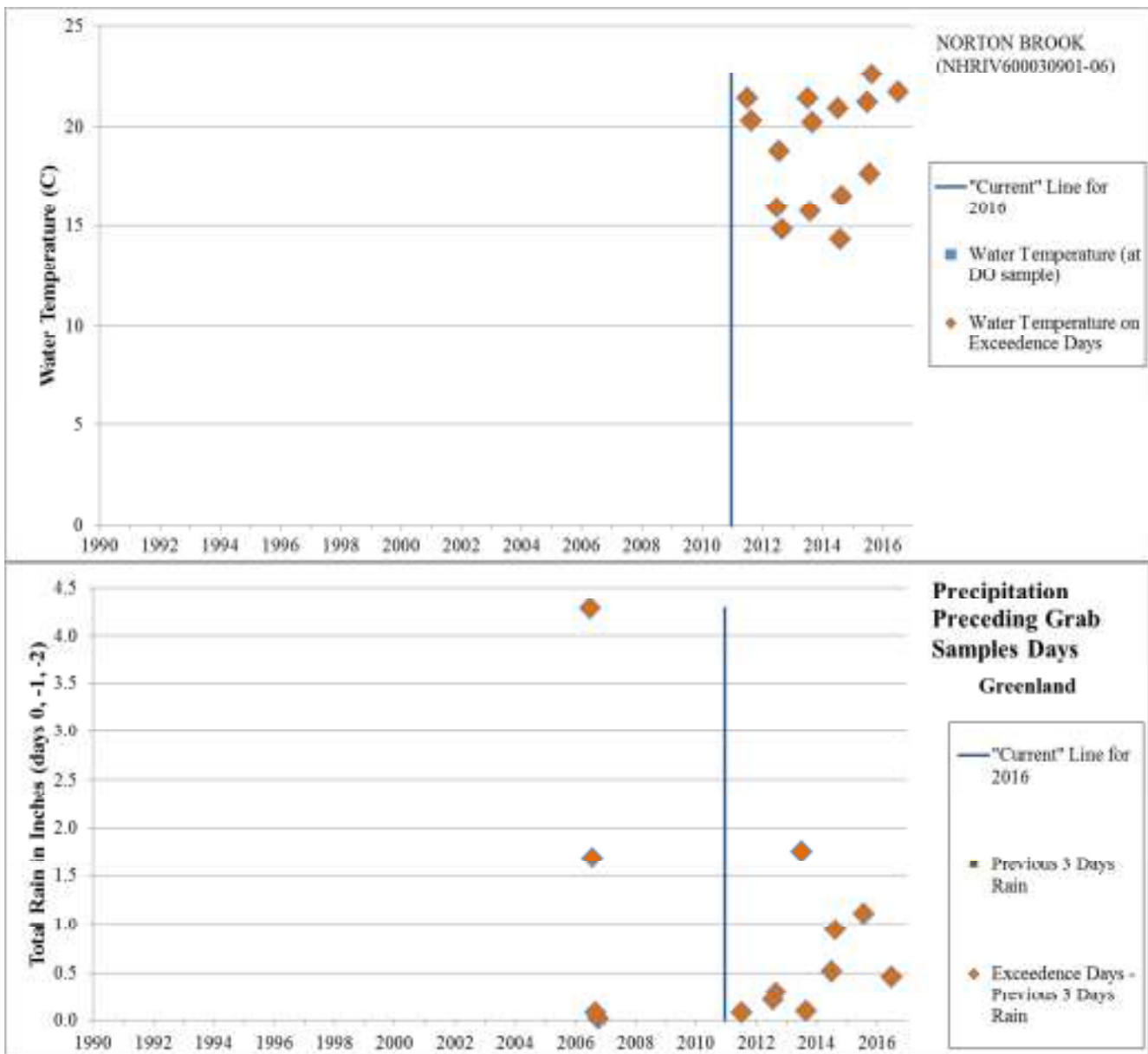
HAWKINS POND (NHLAK700020108-04)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
HAWKINS POND	NHLAK700020108-04	Dissolved Oxygen (mg/L)	CENTER HARBOR	3-ND	5-P

2016: Class A waterbody. New data collected in 2015 and 2016 (three site visits each year during the Critical Period and Critical Time) to collect data for this assessment round, due to lack of historical data for this site. While the data from the epilimnion are fine, the zone of low DO in hypolimnion grows larger and more pronounced over the course of the growing season, extending further up into the water column off the bottom of the lake. Hawkins Pond (NHLAK700020108-04) changed assessment category from 3-ND to 5-P.

HAWKINS POND
(NHLAK700020108-04)

HAWKINS POND
(NHLAK700020108-04)

Gage CFSM
on Sample

USGS 01081000
WINNIPESAUKEE
RIVER AT TILTON,
NH
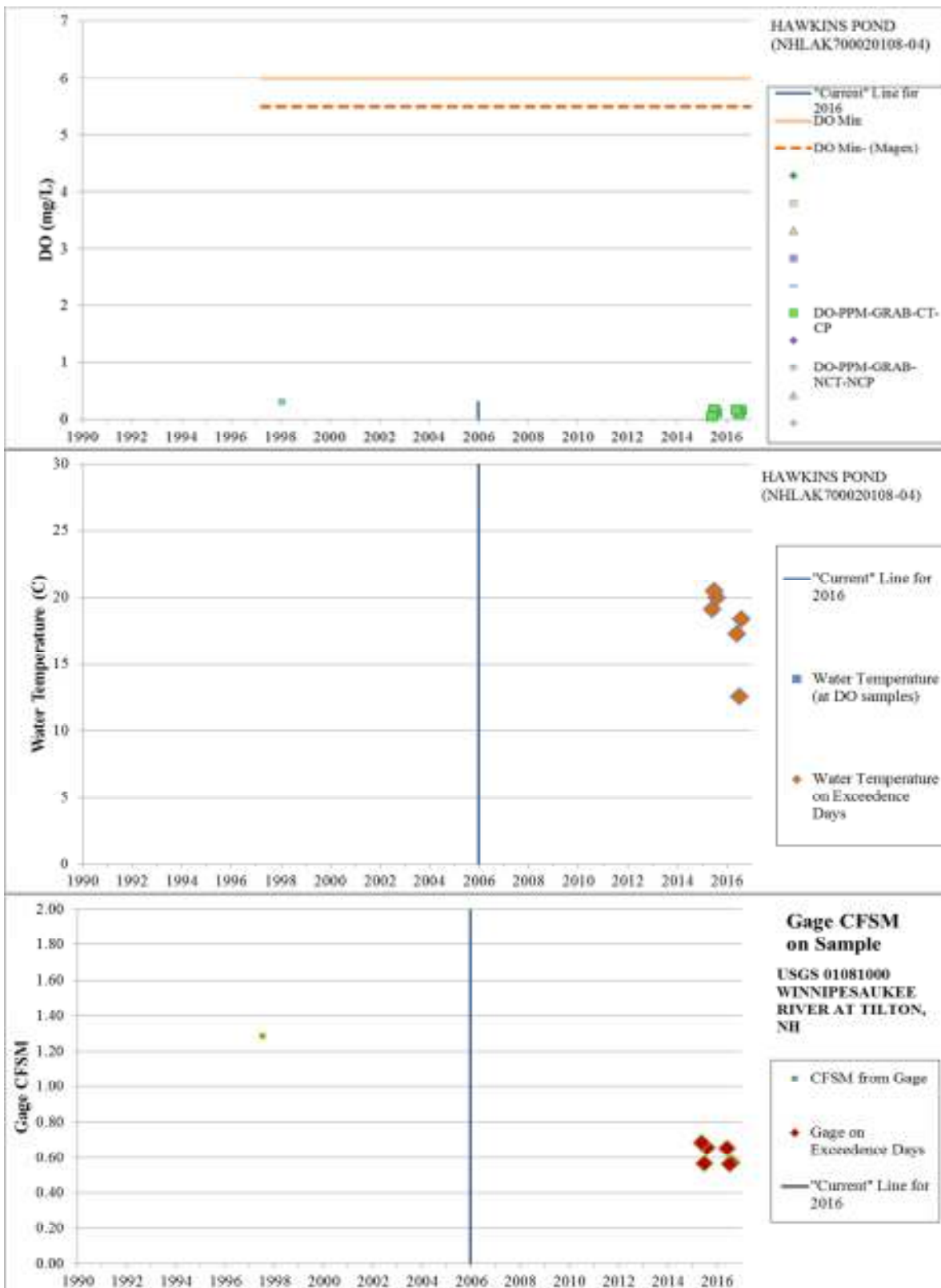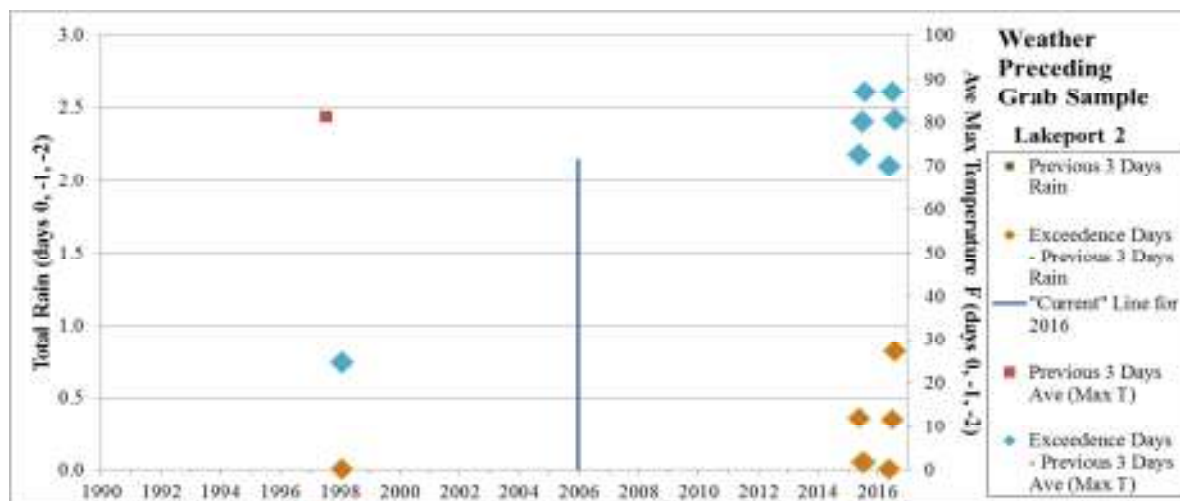
Notes:

DO-PPM-GRAB-CT-CP = Grab samples of dissolved oxygen during the early morning hours of the summer critical period.

DO-PPM-GRAB-NCT-NCP = Grab samples of dissolved oxygen not in the early morning hours and outside the summer critical period.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

HAWKINS POND (NHLAK700020108-04)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
HAWKINS POND	NHLAK700020108-04	Dissolved Oxygen (Percent Saturation)	CENTER HARBOR	3-ND	5-M

2016: Class A waterbody. Data from 2015 and 2016 collected within Critical Period and Critical Time were all below the MAGEX (n=7). Hawkins Pond (NHLAK700020108-04) changed assessment category from 3-ND to 5-P.

Gage CFSM
on Sample

USGS 01081000
WINNIPESAUKEE
RIVER AT TILTON,
NH

—— "Current" Line for 2016

• CFSM from Gage

♦ Gage on Exceedence Days

Weather
Preceding Grab
Sample Days

Lakeport 2

—— "Current" Line for 2016

▪ Previous 3 Days Rain

♦ Exceedence Days - Previous 3 Days Rain

▪ Previous 3 Days Ave (Max T)

♦ Exceedence Days - Previous 3 Days Ave (Max T)

HAWKINS POND
(NHLAK700020108-04)

—— "Current" Line for 2016

▪ Water Temperature (at DO sample)

♦ Water Temperature on Exceedence Days

Notes:

DO-PERC-GRAB-CT-CP = Grab samples of dissolved oxygen during the early morning hours of the summer critical period.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

SAINT ANSELM BROOK - TO PISCATAQUOG RIVER (NHRIV700060607-35)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
SAINT ANSELM BROOK - TO PISCATAQUOG RIVER	NHRIV700060607-35	Dissolved Oxygen (mg/L)	MANCHESTER	3-ND	5-P

2016: New data collected in 2016 at stations 03-SAB and 05-SAB indicate that the brook consistently has dissolved oxygen concentrations below 4.5 mg/L, and on occasion the concentrations fall below 3.0 mg/L. The low dissolved oxygen samples collected during the current assessment period (2011-2016) were collected during flows between 0.17 and 1.02 CFSM at the South Branch Piscataquog River gauge (01091000) and with 3-day rainfall totals between 0.01 and 2.48 inches.

SAINT ANSELM BROOK - TO PISCATAQUOG RIVER (NHRIV700060607-35)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
SAINT ANSELM BROOK - TO PISCATAQUOG RIVER	NHRIV700060607-35	Dissolved Oxygen (Percent Saturation)	MANCHESTER	3-ND	5-P

2016: New data collected in 2016 at stations 03-SAB and 05-SAB indicate that the brook consistently has dissolved oxygen saturation below 65%, and on occasion the saturation falls below 30%. The low dissolved oxygen samples collected during the current assessment period (2011-2016) were collected during flows between 0.17 and 1.02 CFSM at the South Branch Piscataquog River gauge (01091000) and with 3-day rainfall totals between 0.01 and 2.48 inches.

SAINT ANSELM BROOK
- TO PISCATAQUOG
RIVER

- "Current" Line for 2016
- DOSat Min
- DOSat Min- (Mages)
- DO-PERC-GRAB-NCT-CP
- DO-PERC-GRAB-CT-NCP
- DO-PERC-GRAB-CT-CP

SAINT ANSELM
BROOK - TO
PISCATAQUOG RIVER
(NHRIV700060607-35)

- "Current" Line for 2016
- Water Temperature (at DO sample)
- Water Temperature on Exceedence Days

BLACK BROOK - HARDY BROOK (NHRIV700060801-05-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BLACK BROOK - HARDY BROOK	NHRIV700060801-05-01	Dissolved Oxygen (mg/L)	GOFFSTOWN	3-PAS	5-P

2016: New data collected in 2015 at stations 03-BKB, 04-BKB, 05-BKB, 09-HRG, 10-HRG and 11-HRG indicate that the brook consistently has dissolved oxygen concentrations below 4.5 mg/L, and on occasion the concentrations fall below 3.0 mg/L. The low dissolved oxygen samples collected during the current assessment period (2011-2016) were collected during flows between 0.18 and 0.89 CFSM at the South Branch Piscataquog River gauge (01091000) and with 3-day rainfall totals between 0.05 and 1.24 inches.

BLACK BROOK - HARDY BROOK (NHRIV700060801-05-

BLACK BROOK - HARDY BROOK (NHRIV700060801-05-

BLACK BROOK - HARDY BROOK (NHRIV700060801-05-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BLACK BROOK - HARDY BROOK	NHRIV700060801-05-01	Dissolved Oxygen (Percent Saturation)	GOFFSTOWN	3-PAS	5-P

2016: New data collected in 2015 at stations 03-BKB, 04-BKB, 05-BKB, 09-HRG, 10-HRG and 11-HRG indicate that the brook consistently has dissolved oxygen saturation below 65%, and on occasion the saturation falls below 30%. The low dissolved oxygen samples collected during the current assessment period (2011-2016) were collected during flows between 0.18 and 0.89 CFSM at the South Branch Piscataquog River gauge (01091000) and with 3-day rainfall totals between 0.05 and 1.24 inches.
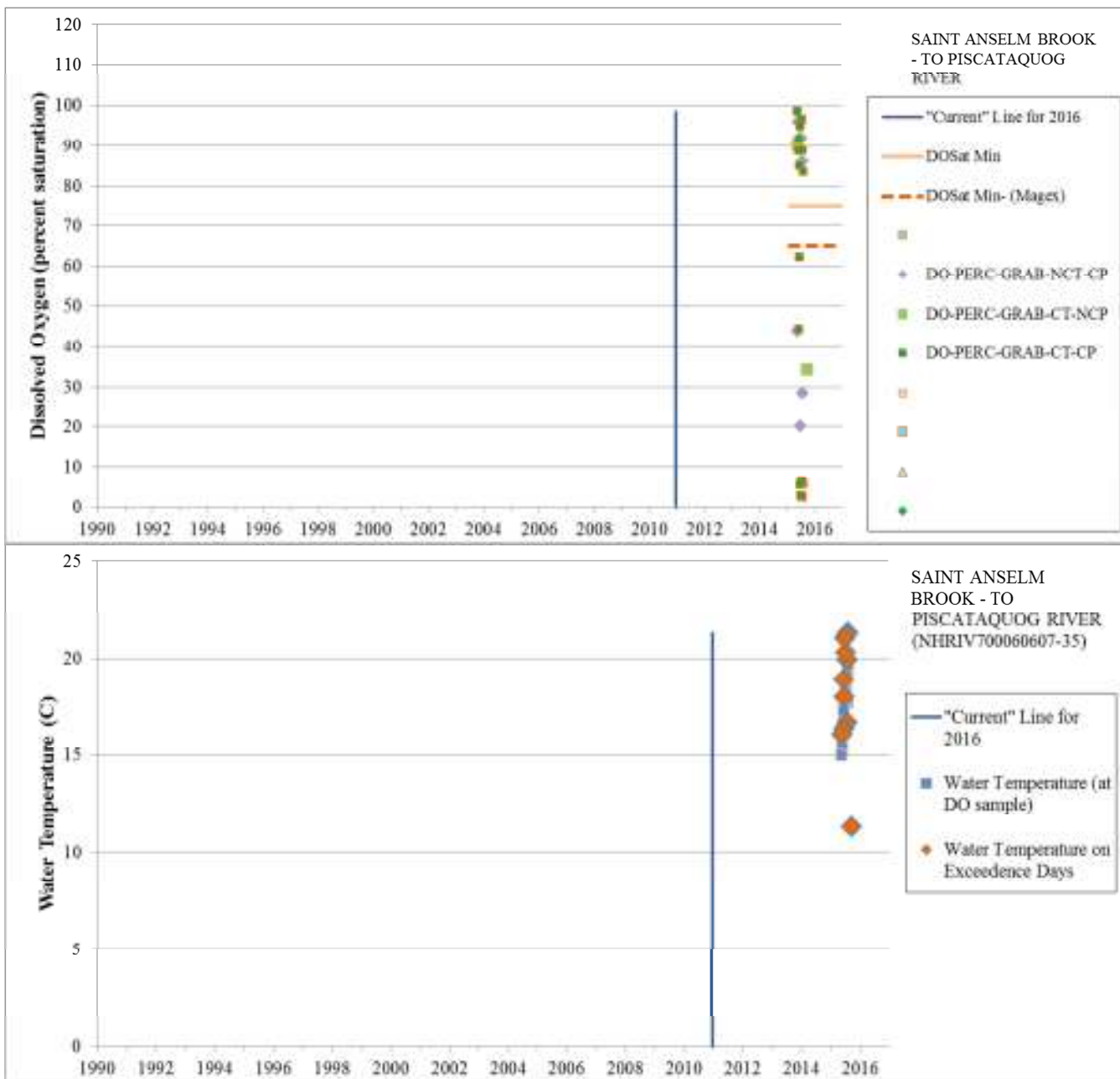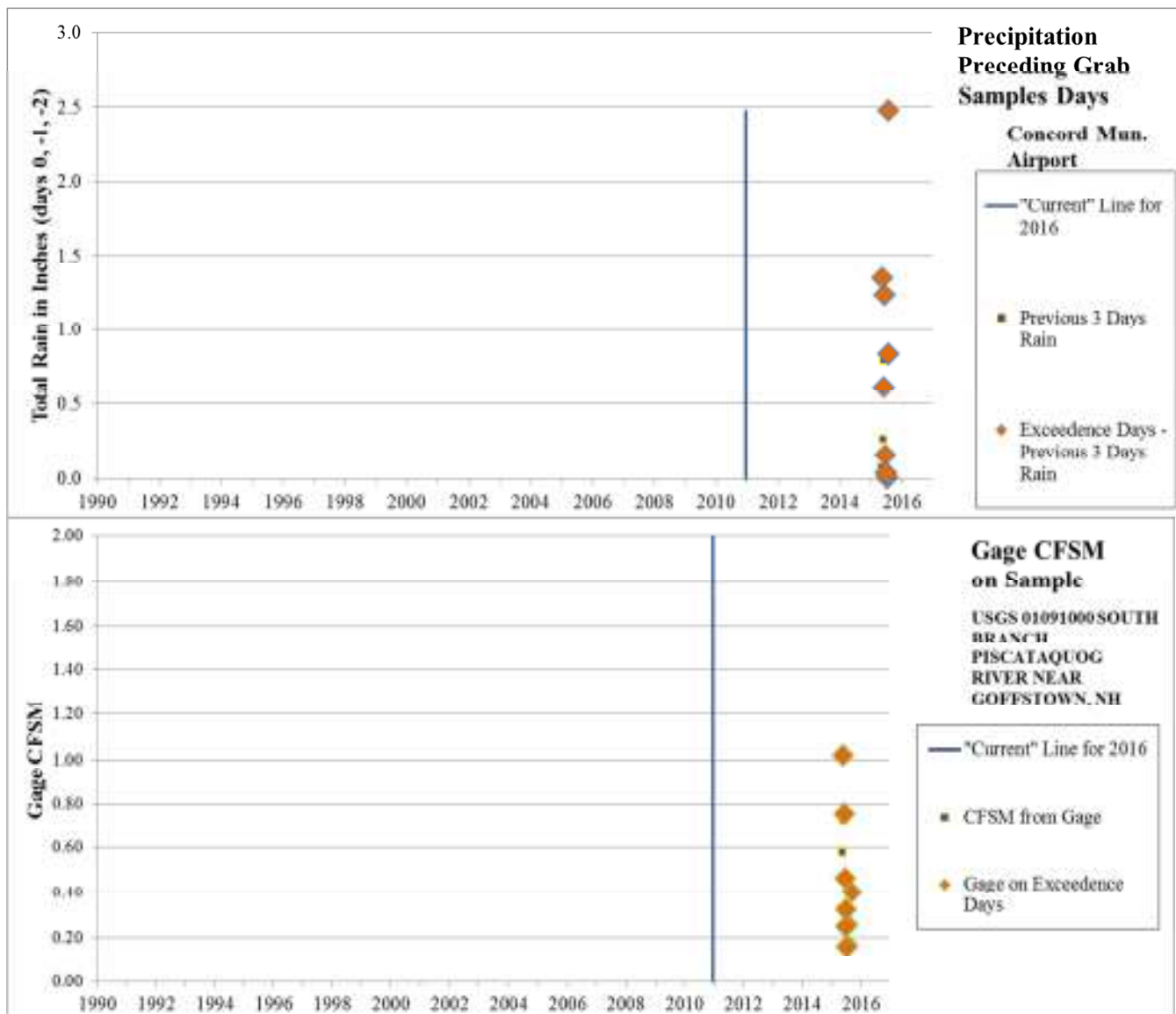
BLACK BROOK -
HARDY BROOK
(NHRIV700060801-05-01)

— "Current" Line for 2016
— DOSat Min
- - DOSat Min- (Magex)
■ DO-PERC-GRAB-NCT-NCP
◆ DO-PERC-GRAB-NCT-CP
■ DO-PERC-GRAB-CT-CP

**Gage CFSM
on Sample**

USGS 01091000 SOUTH
BRANCH
PISCATAQUOG
RIVER NEAR
GOFFSTOWN, NH

— "Current" Line for 2016
■ CFSM from Gage
◆ Gage on Exceedence Days

**Weather
Preceding Grab
Sample Days**

Concord Mun.
Airport

— "Current" Line for 2016
■ Previous 3 Days Rain
▼ Exceedence Days - Previous 3 Days Rain
■ Previous 3 Days Ave (Max T)
✦ Exceedence Days - Previous 3 Days Ave (Max T)

RIDDLE BROOK (NHRIV700060905-18)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
RIDDLE BROOK	NHRIV700060905-18	Dissolved Oxygen (mg/L)	BEDFORD	3-PAS	5-P

2016: New data collected in 2015 at stations 15P-RID, 17-RID, and 16-RIP indicates that the brook consistently has dissolved oxygen concentrations below 4.5 mg/L, and on occasion the concentrations fall below 3.0 mg/L. The low dissolved oxygen samples collected during the current assessment period (2011-2016) were collected during flows between 0.17 and 1.02 CFSM at the South Branch Piscataquog River gauge (01091000) and with 3-day rainfall totals between 0.01 and 2.48 inches.
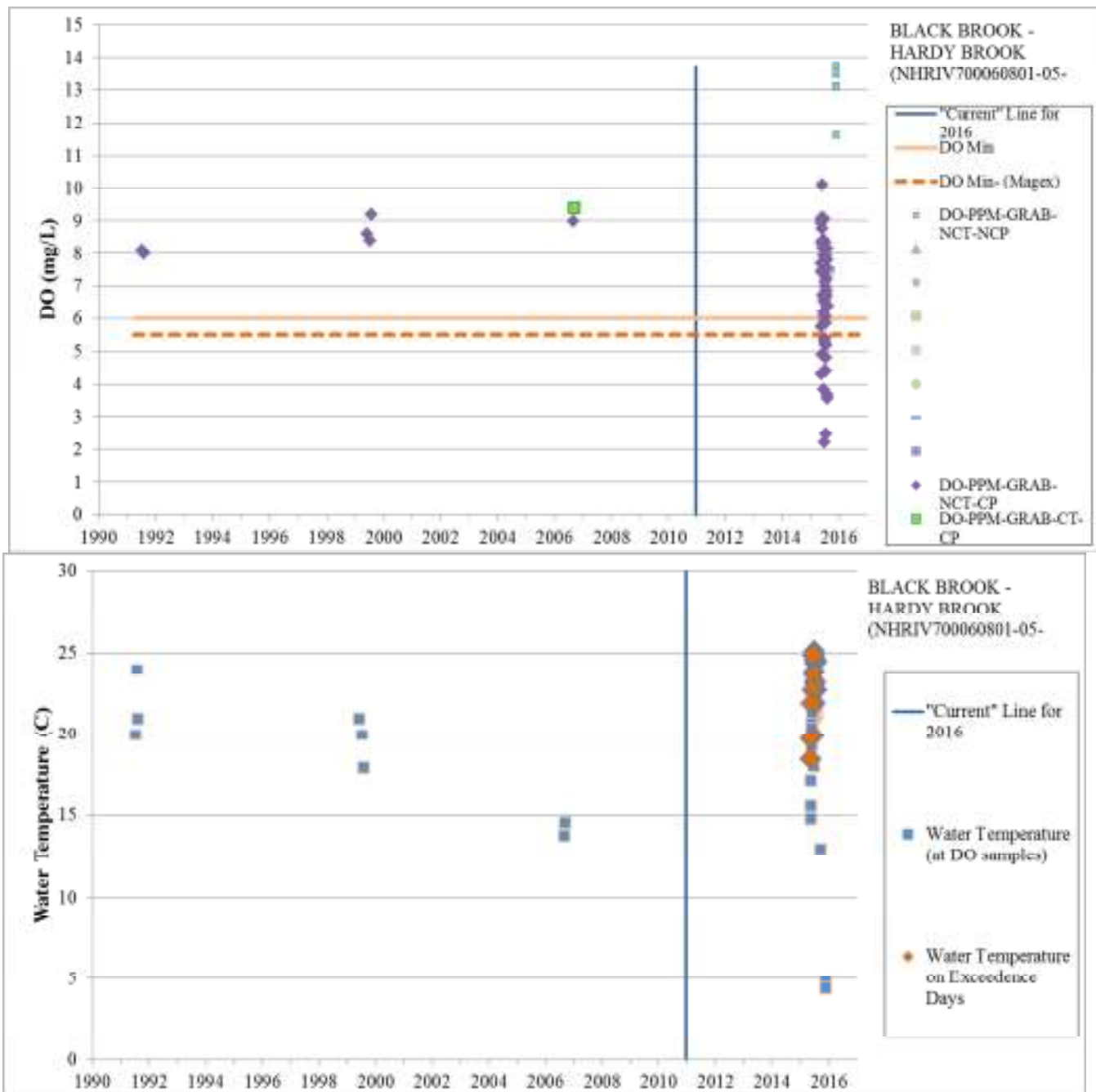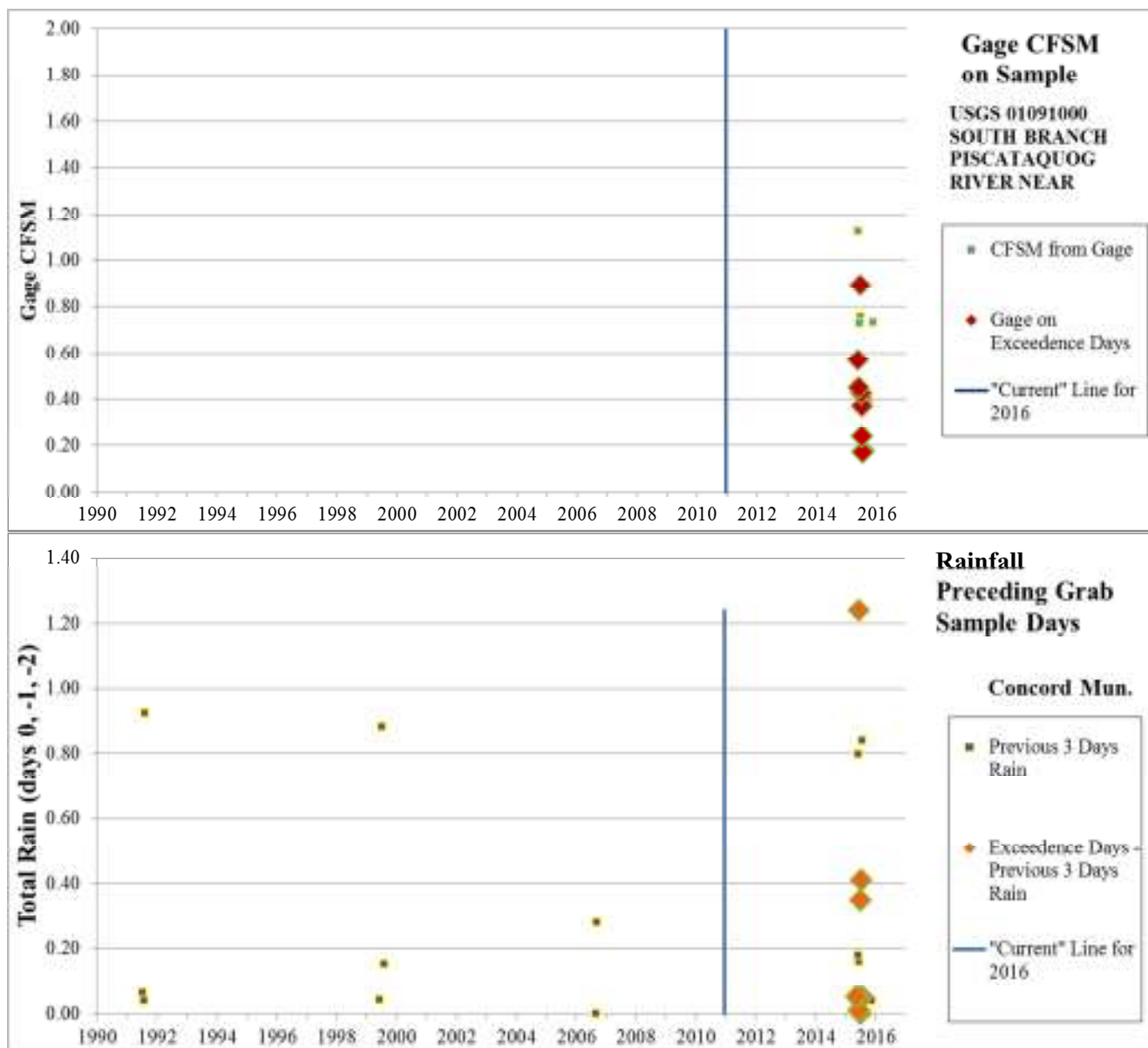
RIDDLE BROOK (NHRIV700060905-18)

Rainfall Preceding Grab Sample Days

Concord Mun.

RIDDLE BROOK (NHRIV700060905-18)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
RIDDLE BROOK	NHRIV700060905-18	Dissolved Oxygen (Percent Saturation)	BEDFORD	3-PAS	5-P

2016: New data collected in 2015 at stations 15P-RID, 17-RID, and 16-RIP indicates that the brook consistently has dissolved oxygen saturation below 65%, and on occasion the saturation falls below 30%. The low dissolved oxygen samples collected during the current assessment period (2011-2016) were collected during flows between 0.17 and 1.02 CFSM at the South Branch Piscataquog River gauge (01091000) and with 3-day rainfall totals between 0.01 and 2.48 inches.
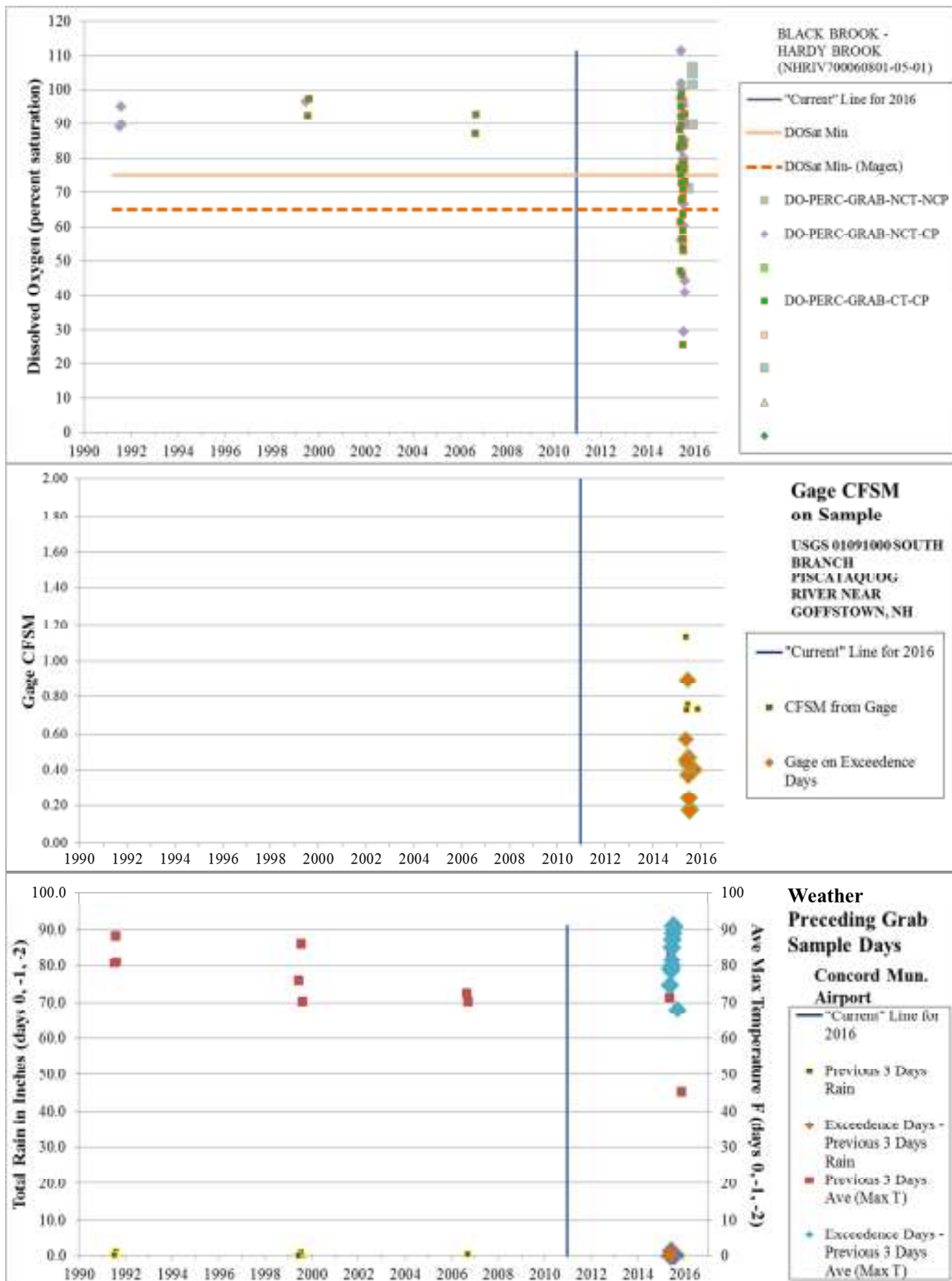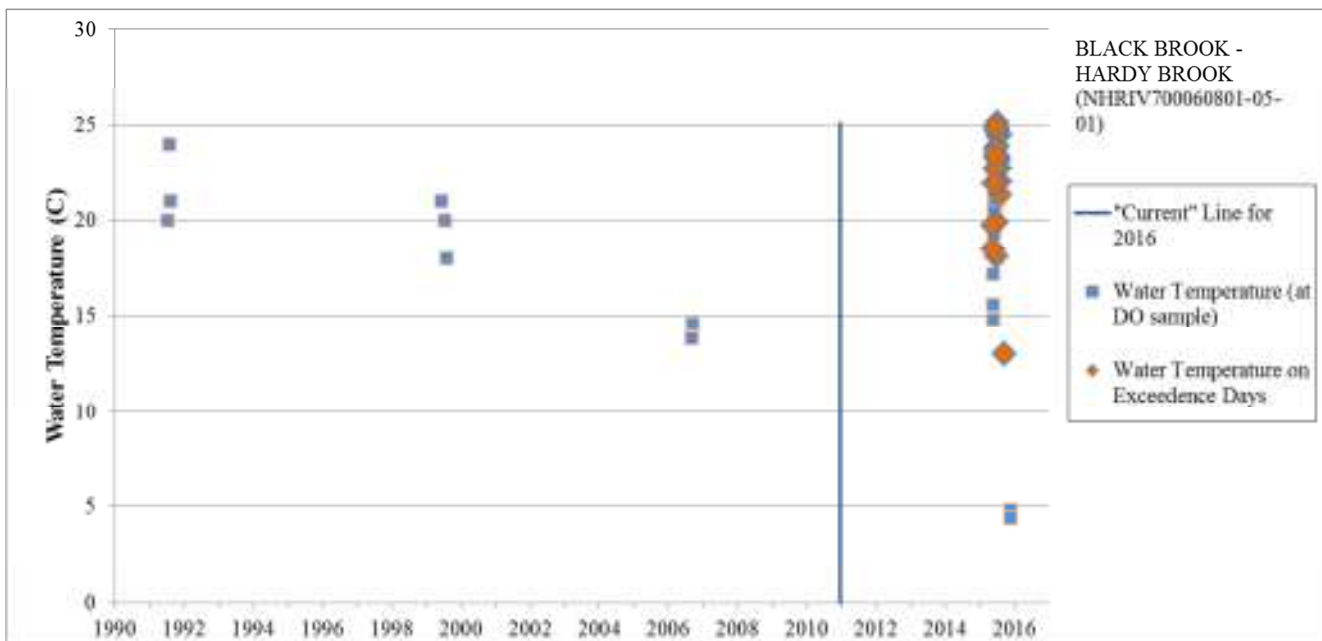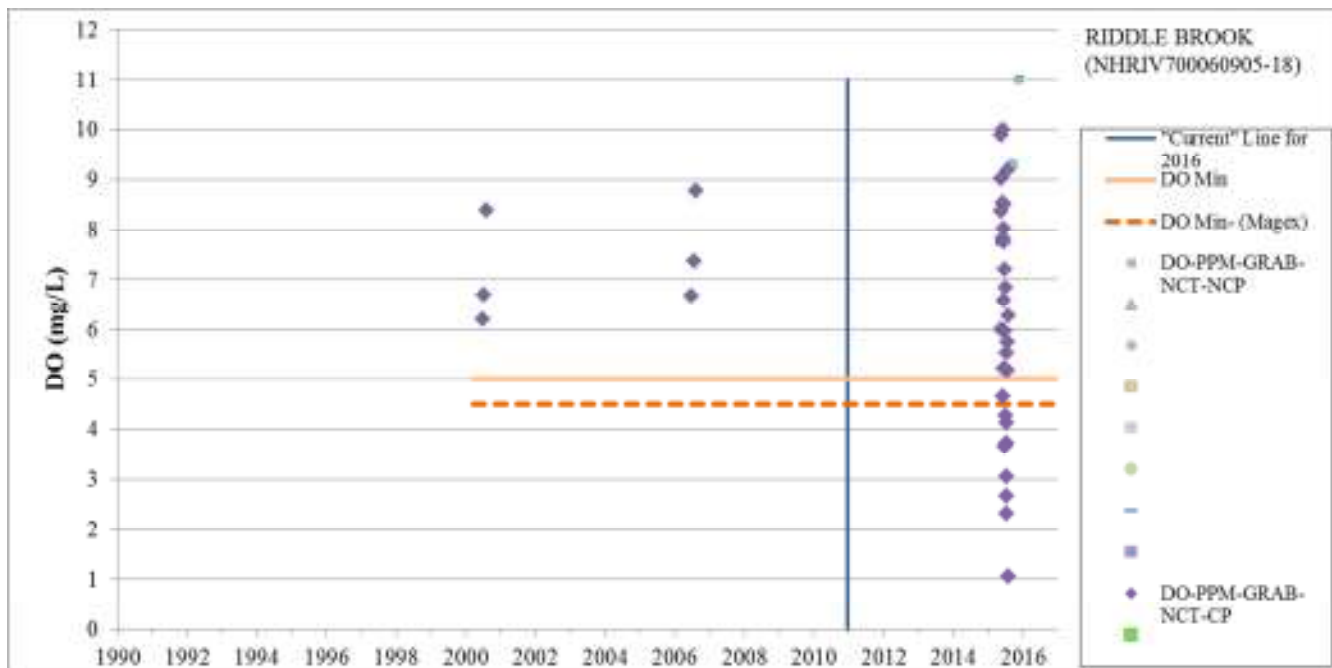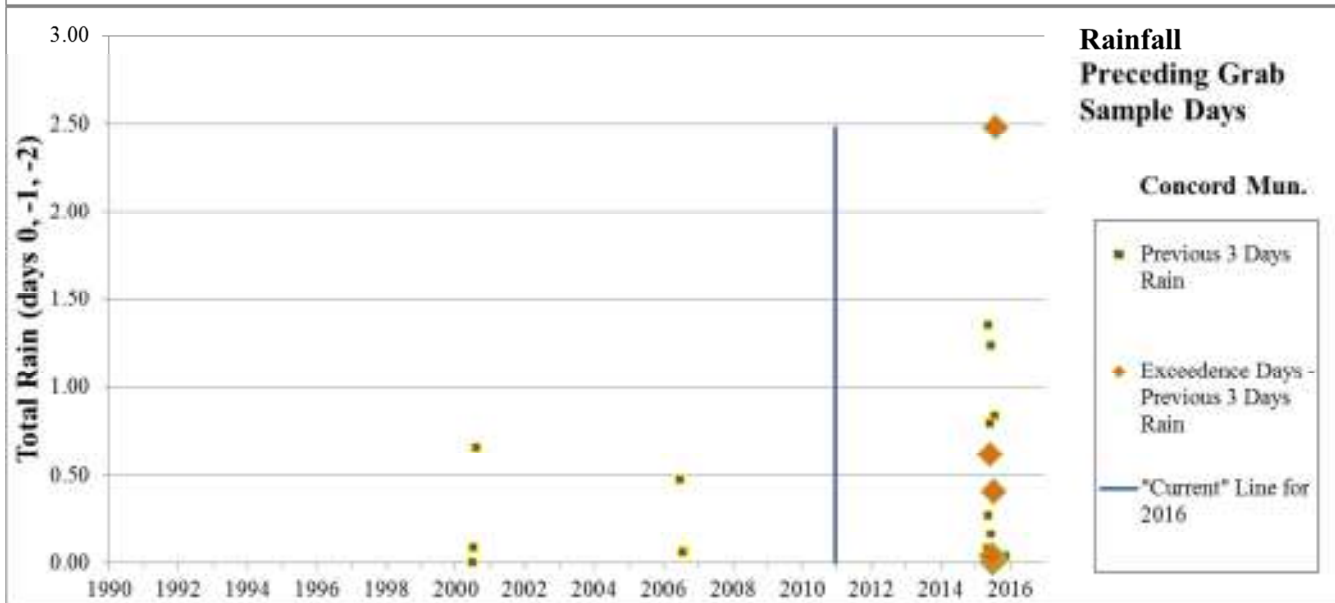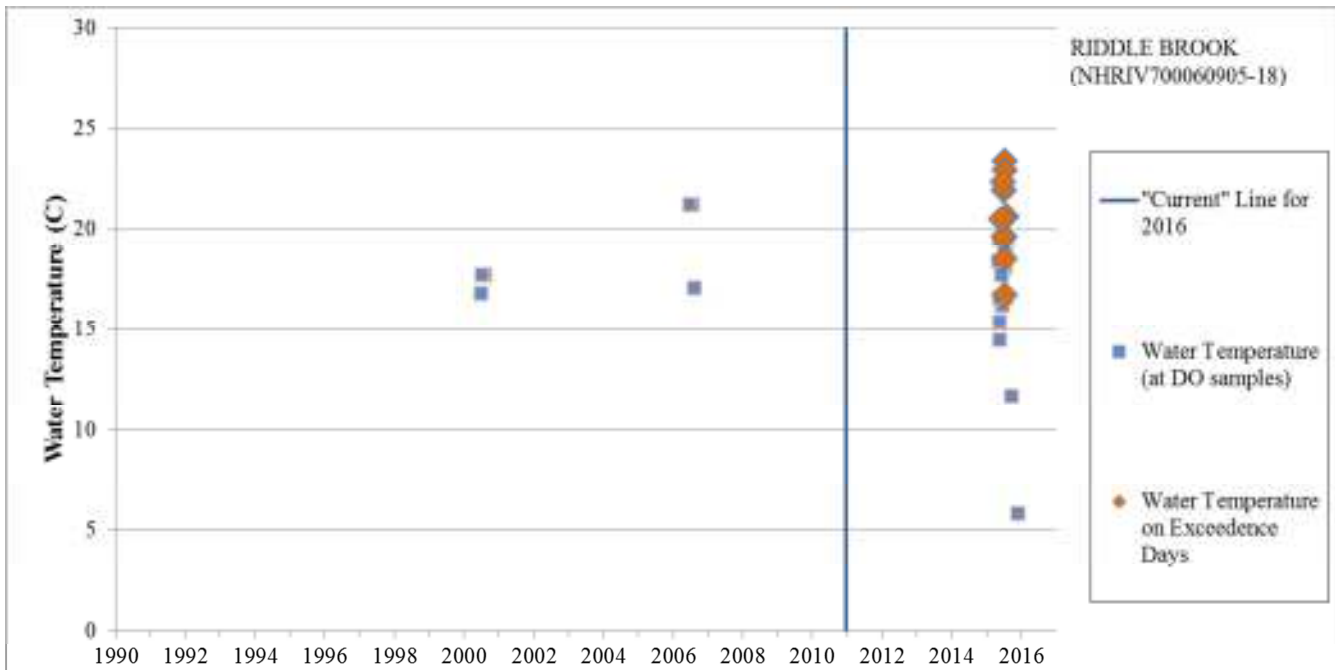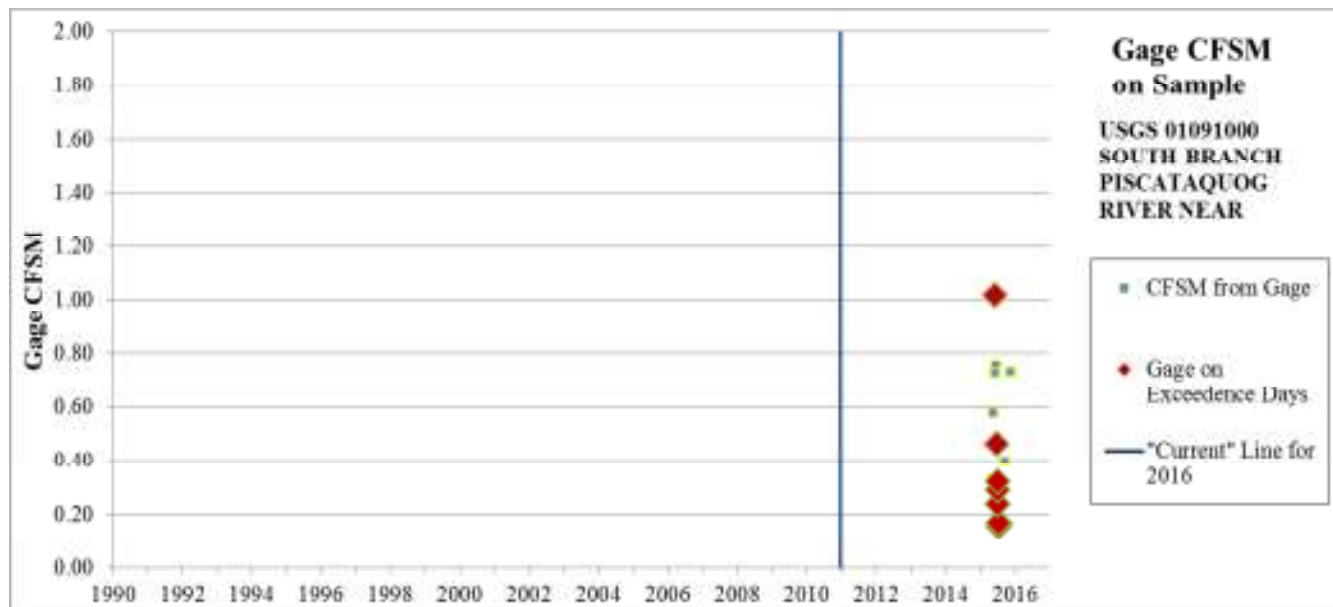
Weather Preceding Grab Sample Days

Concord Mun. Airport

RIDDLE BROOK (NHRIV700060905-18)

Gage CFSM on Sample

USGS 01091000 SOUTH BRANCH PISCATAQUOG RIVER NEAR GOFFSTOWN, NH

LONG POND (NHLAK700061205-02-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
LONG POND	NHLAK700061205-02-01	Dissolved Oxygen (mg/L)	PELHAM	3-PNS	5-P

2016: Class B waterbody. Most samples meet standards however n=2 MAGEXC results from within the CP and CT exceed the 10% limit for this waterbody. Stratification does occasionally extend deep into the water column in this waterbody. The July 31, 2014, sample from 5 meters was checked against the temperature profile and it reflects the DO samples from the bottom of the epilimnion, which extended as deep as 5 meters in this 6.5 meter deep waterbody. There was a quick transition to lower temperatures below this depth level.
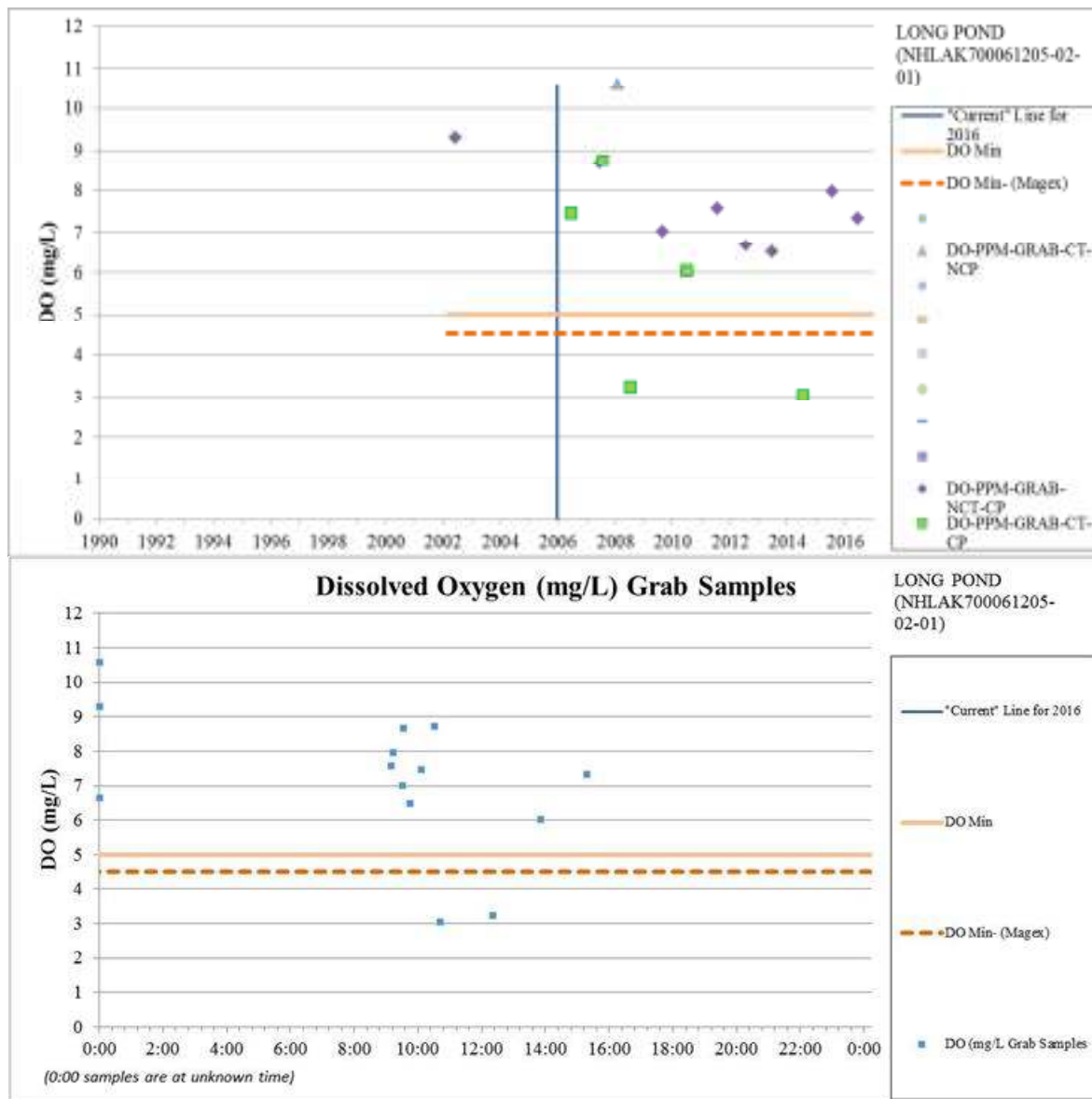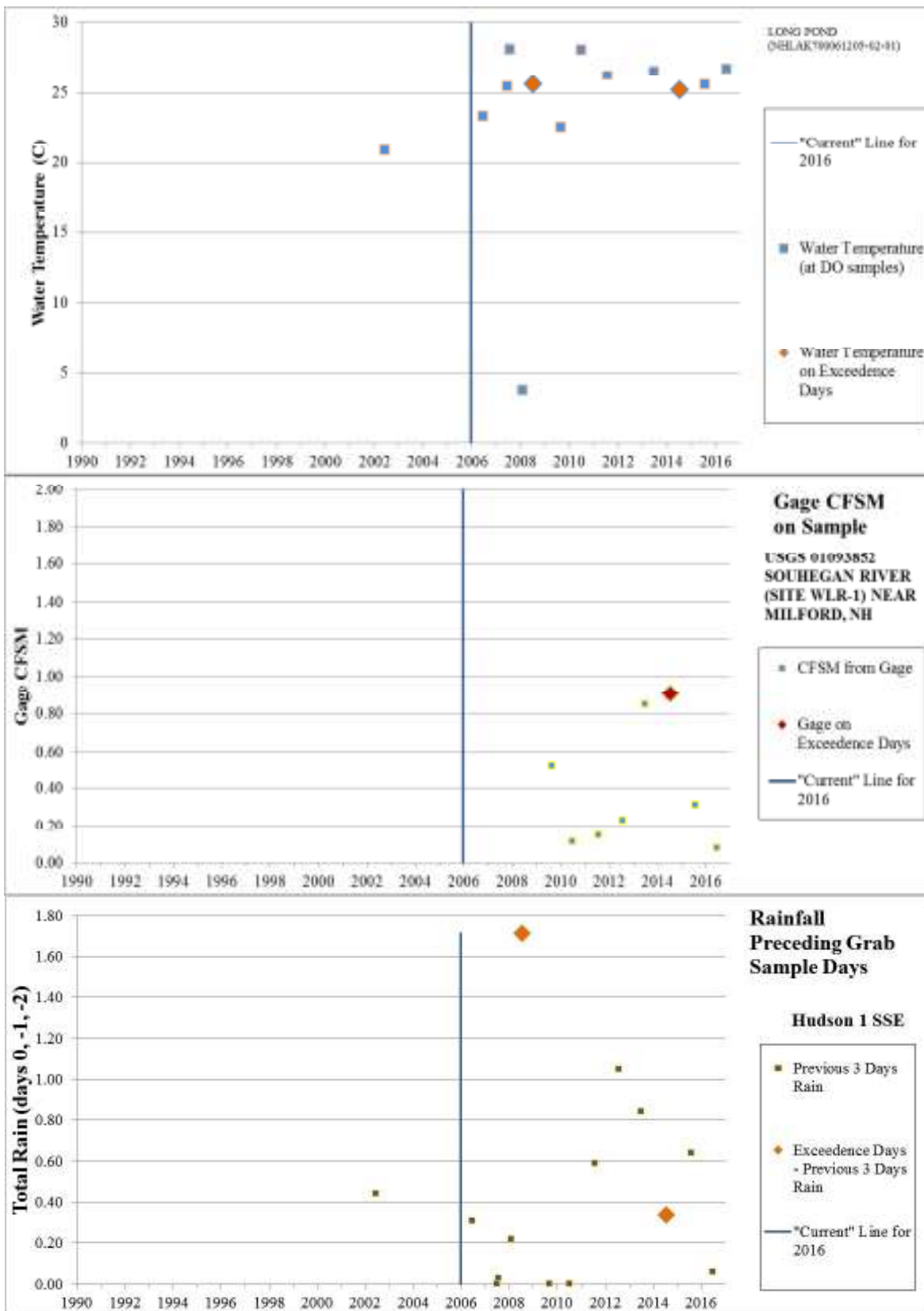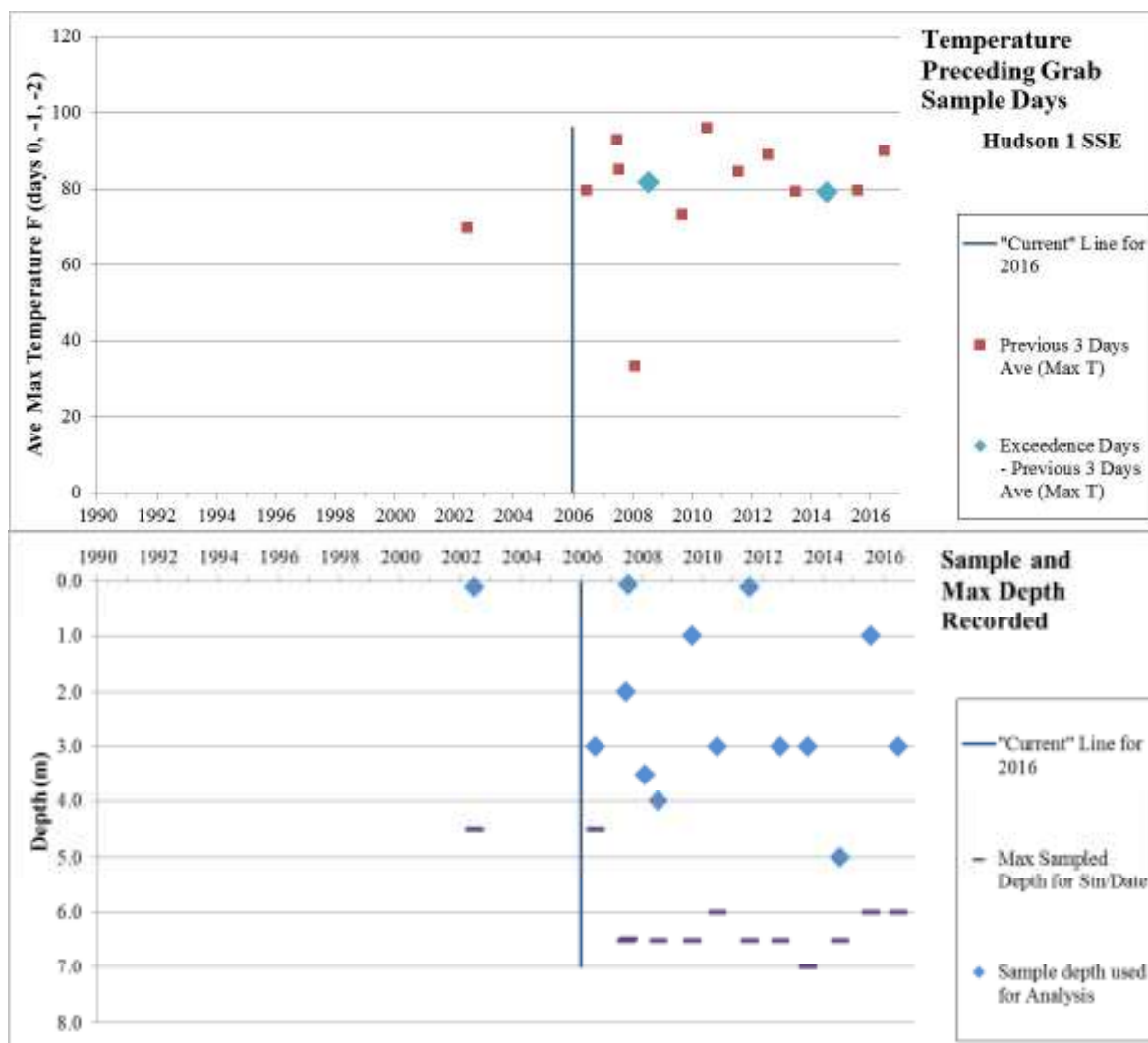
LONG POND
(NHLAK700061205-02-01)

Legend (top chart):
"Current" Line for 2016
Water Temperature (at DO samples)
Water Temperature on Exceedence Days

Gage CFSM on Sample

USGS 01093852
SOUHEGAN RIVER
(SITE WLR-1) NEAR
MILFORD, NH

CFSM from Gage
Gage on Exceedence Days
"Current" Line for 2016

Rainfall Preceding Grab Sample Days

Hudson 1 SSE

Previous 3 Days Rain
Exceedence Days - Previous 3 Days Rain
"Current" Line for 2016

LONG POND (NHLAK700061205-02-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
LONG POND	NHLAK700061205-02-01	DISSOLVED OXYGEN % SATURATION	PELHAM	3-PNS	5-M

2016: Class B waterbody. Most samples meet standards however n=2 MAGEXC results from within the CP and CT exceed the 10% limit for this waterbody. Also, oxygen saturations tend to be low in this waterbody below 5 meters, fairly consistently. Anoxia occasionally extends up to the 4m depth mark. Temp profiles were checked for stratification for the 4m and 5m depth sample inclusion and they are valid.
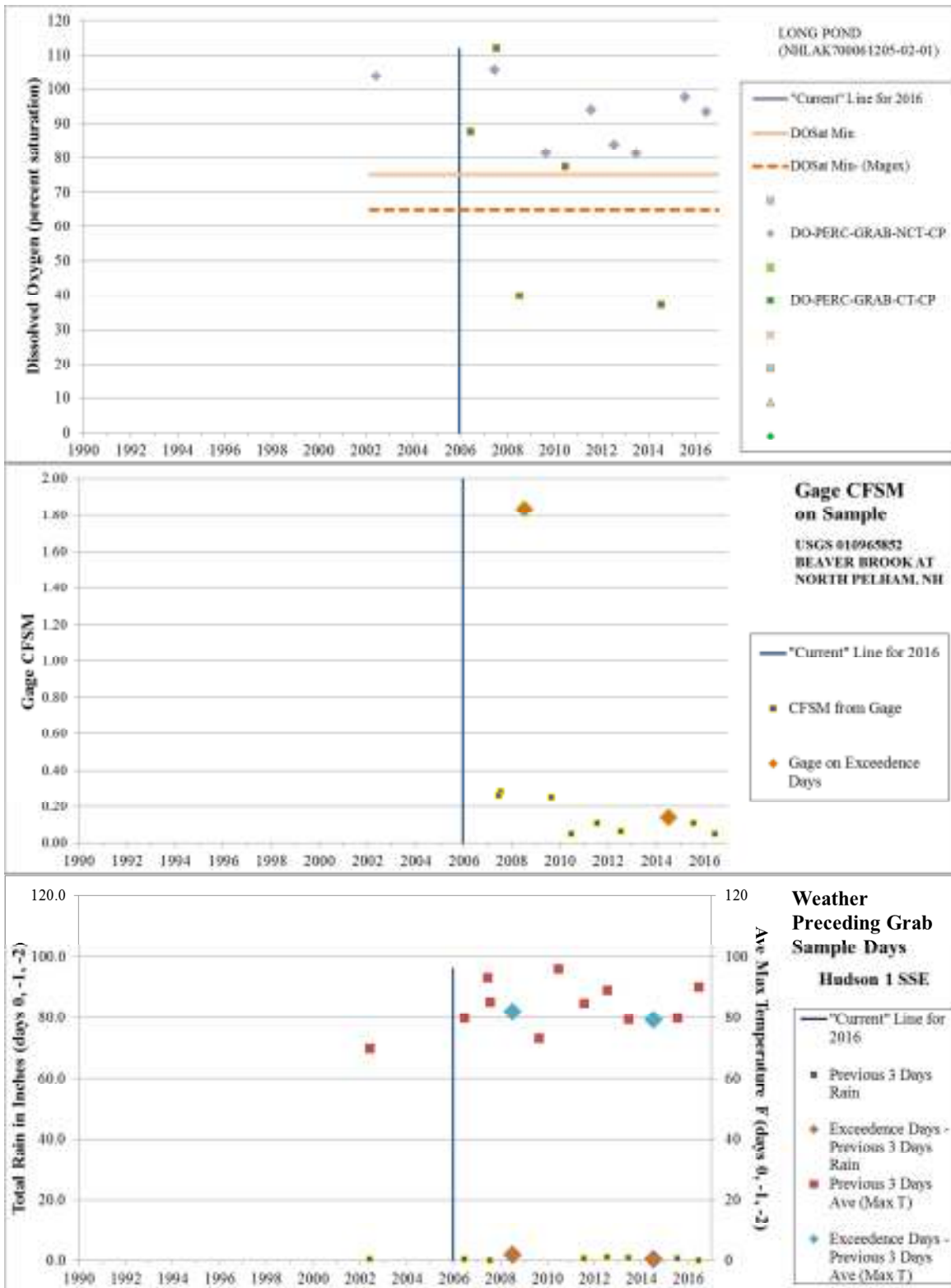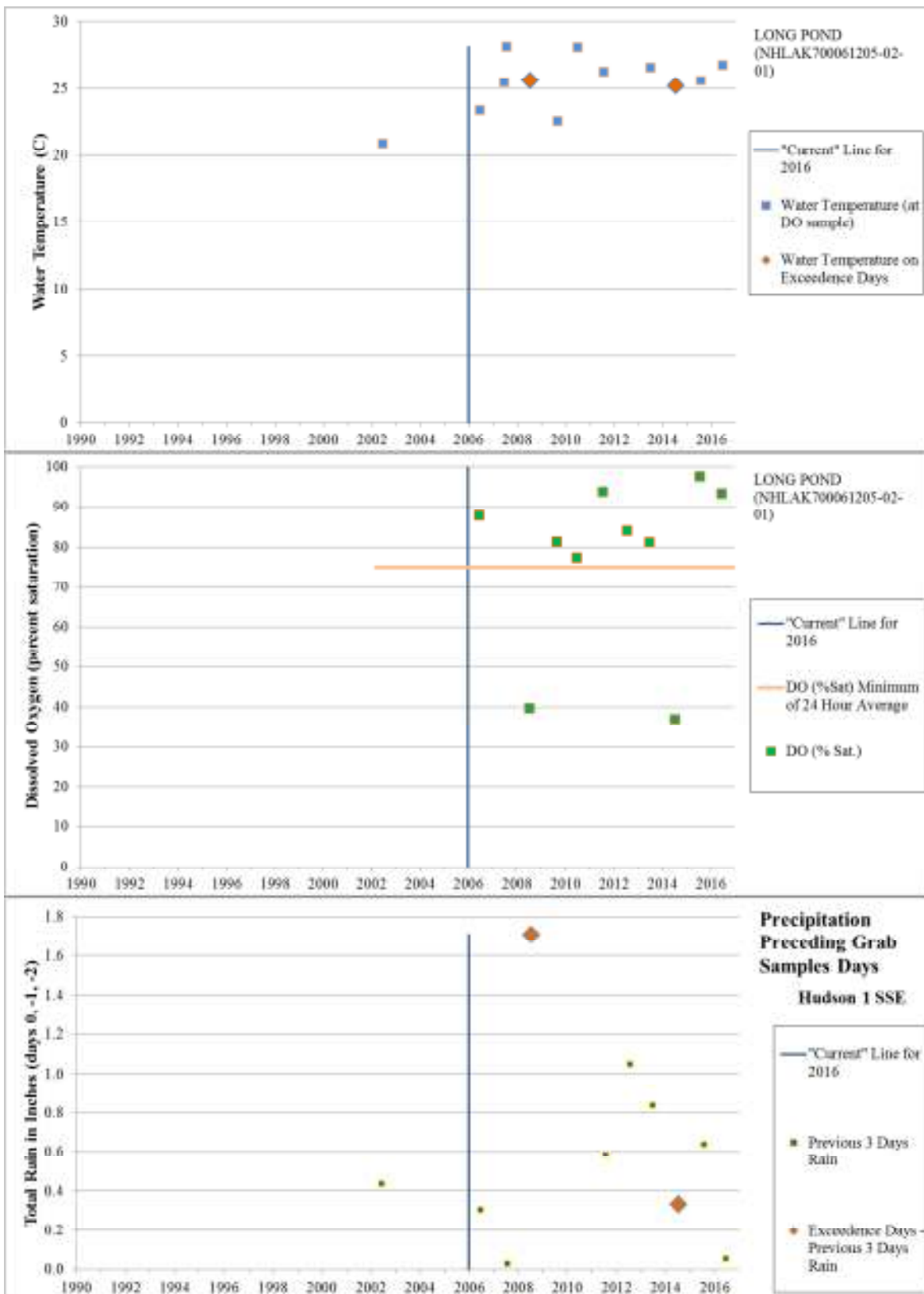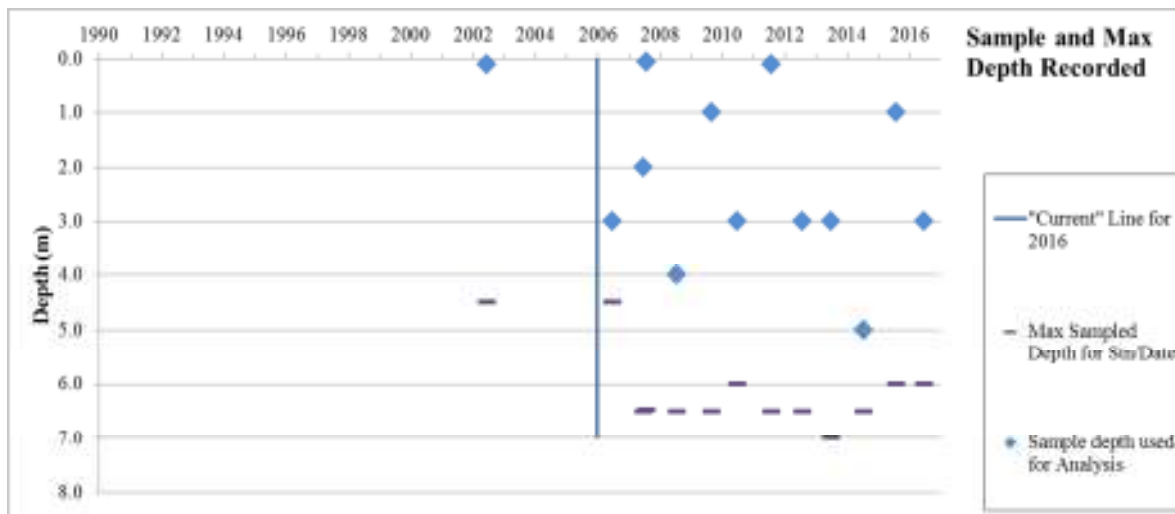
LONG POND
(NHLAK700061205-02-01)

— "Current" Line for 2016

■ Water Temperature (at DO sample)

♦ Water Temperature on Exceedence Days

LONG POND
(NHLAK700061205-02-01)

— "Current" Line for 2016

— DO (%Sat) Minimum of 24 Hour Average

■ DO (% Sat.)

Precipitation Preceding Grab Samples Days

Hudson 1 SSE

— "Current" Line for 2016

■ Previous 3 Days Rain

♦ Exceedence Days - Previous 3 Days Rain

WEST RIVER - ASH SWAMP BROOK - LILY POND BROOK - UNNAMED BROOK (NHRIV801070507-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
WEST RIVER - ASH SWAMP BROOK - LILY POND BROOK - UNNAMED BROOK	NHRIV801070507-01	Dissolved Oxygen (mg/L)	HINSDALE	3-ND	5-P

2016: New datalogger data collected in 2016 at station 03-ASW indicates that the brook consistently has 24-hour minimum dissolved oxygen concentrations below 5.0 mg/L, and on occasion the concentrations fall below 4.5 mg/L. The low dissolved oxygen samples collected during the current assessment period (2011-2016) were collected during flows between 0.17 and 0.49 CFSM at the Ashuelot River gauge (01160350) and with 3-day rainfall totals between 0.00 and 0.79 inches.
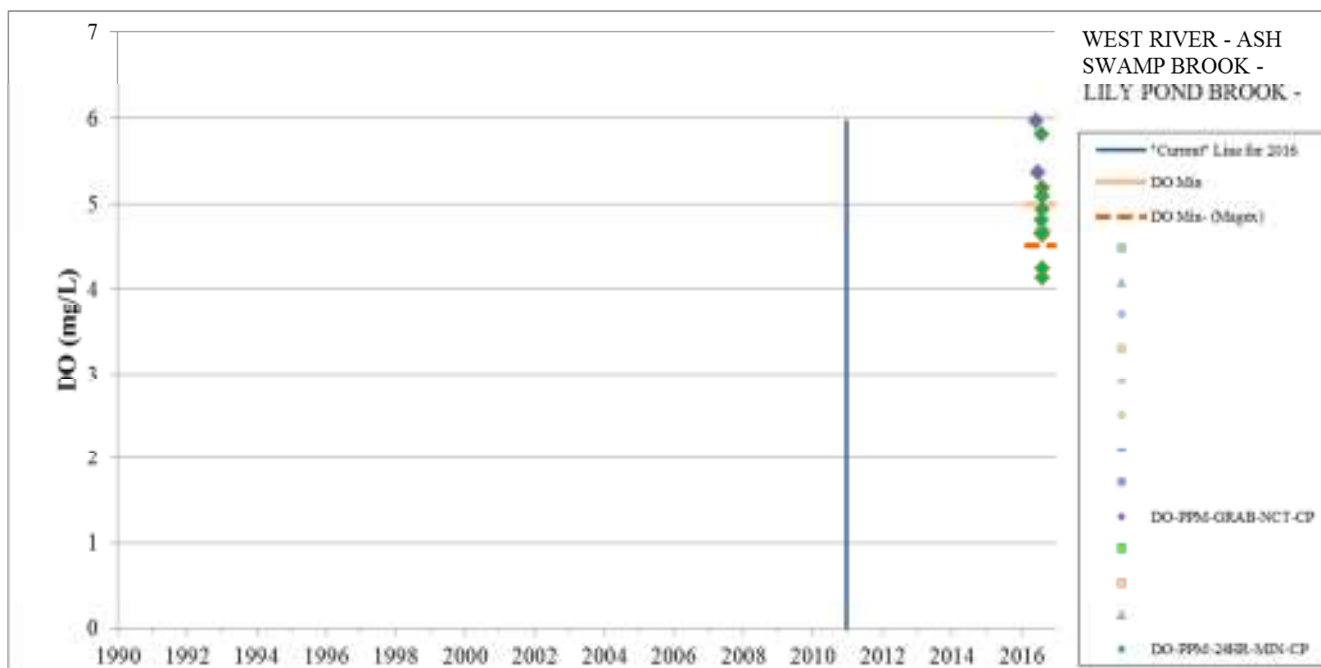
WEST RIVER - ASH SWAMP BROOK - LILY POND BROOK - UNNAMED BROOK (NHRIV801070507-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
WEST RIVER - ASH SWAMP BROOK - LILY POND BROOK - UNNAMED BROOK	NHRIV801070507-01	Dissolved Oxygen (Percent Saturation)	HINSDALE	3-ND	5-M

2016: New datalogger data collected in 2016 at station 03-ASW indicates that the brook consistently has 24-hour average dissolved oxygen saturation below 75%. The low dissolved oxygen samples collected during the current assessment period (2011-2016) were collected during flows between 0.17 and 0.49 CFSM at the Ashuelot River gauge (01160350) and with 3-day rainfall totals between 0.00 and 0.79 inches.

WEST RIVER - ASH SWAMP BROOK - LILY POND BROOK -

- "Current" Line for 2016
- DOSat Min
- DOSat Min- (Magex)
- DO-PERC-GRAB-NCT-CP
- DO-PERC-24H-MEAN-CP

Gage CFSM on Sample

USGS 01160350 ASHUELOT RIVER AT WEST SWANZEY, NH

- "Current" Line for 2016
- CFSM from Gage
- Gage on Exceedence Days

Precipitation Preceding Grab Samples Days

Keene

- "Current" Line for 2016
- Previous 3 Days Rain
- Exceedence Days - Previous 3 Days Rain
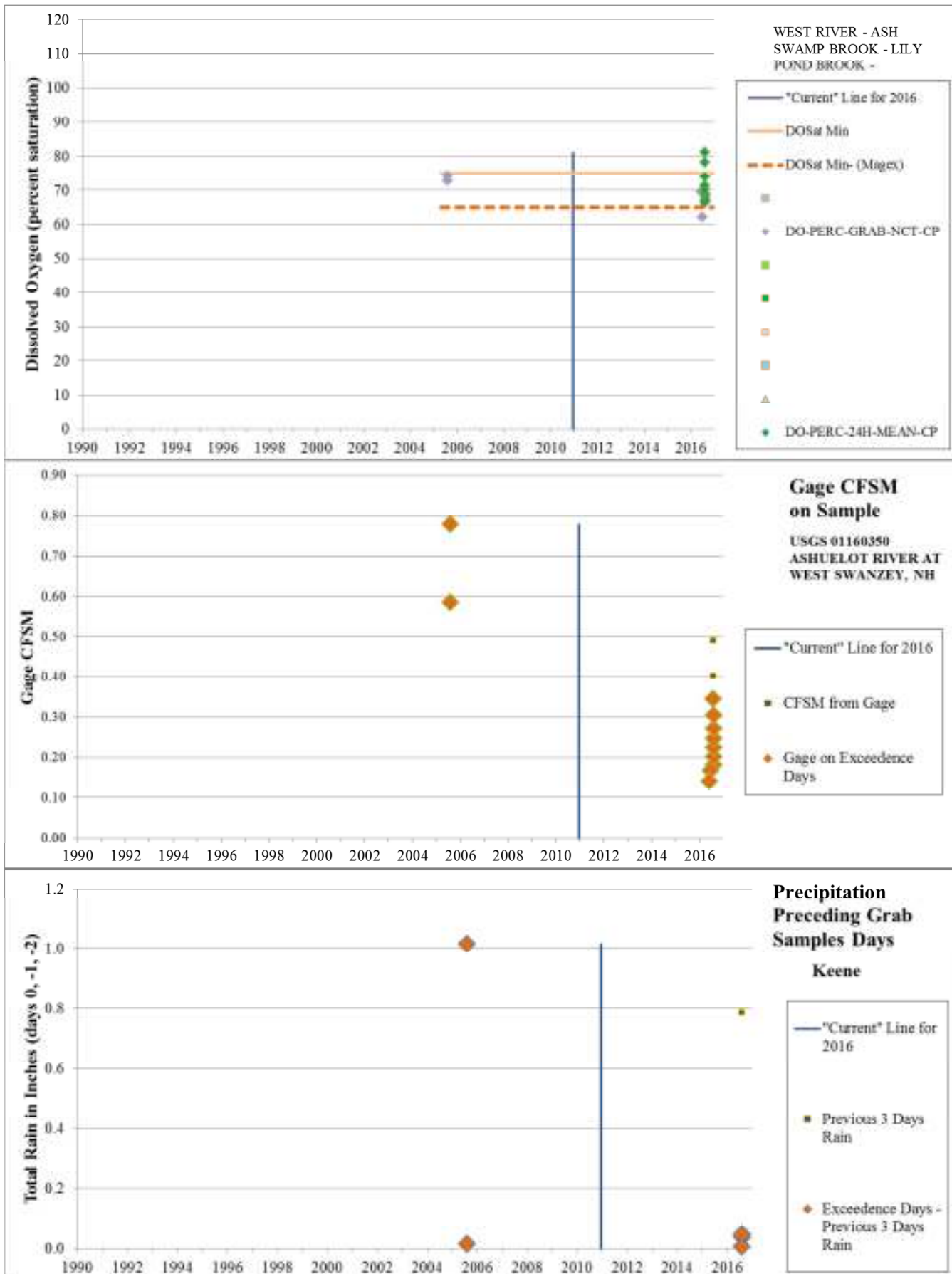
WHEELWRIGHT POND (NHLAK600030902-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
WHEELWRIGHT POND	NHLAK600030902-02	Dissolved Oxygen (Percent Saturation)	LEE	3-ND	5-M

2016: Very limited data set. Two samples were MAGEX for this Class B waterbody, though only one was collected during the CT and CP. Both data points were well below the minimum threshold for DO sat. One of the two was not within the critical time, but was 22 minutes earlier than start of CT period, so still close to the timeline. While there are few data points for this waterbody, historic data also show low DO sat in the waterbody.

Weather Preceding Grab Sample Days

Durham

Legend:
- "Current" Line for 2016
- Previous 3 Days Rain
- Exceedence Days - Previous 3 Days Rain
- Previous 3 Days Ave (Max T)
- Exceedence Days - Previous 3 Days Ave (Max T)

WHEELWRIGHT POND (NHLAK600030902-02)

Legend:
- "Current" Line for 2016
- Water Temperature (at DO sample)
- Water Temperature on Exceedence Days

WHEELWRIGHT POND (NHLAK600030902-02)

Legend:
- "Current" Line for 2016
- DO (%Sat) Minimum of 24 Hour Average
- DO (% Sat.)

Lake – Chlorophyll-a/Total Phosphorus for Aquatic Life Use Support

LOCKE LAKE (NHIMP700060402-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
WEBSTER STREAM - LOCKE LAKE	NHIMP700060402-02	Chlorophyll a	Barnstead	3-PNS	5-M
		Total Phosphorus	Barnstead	3-PNS	5-M

Locke Lake was assessed as 3-PNS in 2014 although data supported impairment at that time. The decision to wait was in order to make the assessment based on a full 10 year data set. The target trophic class for Locke Lake is mesotrophic and the high median chlorophyll-a and total phosphorus support impairment. The quantity of invasive plants in this system has varied throughout the years, and reached a peak at 38 acres of infestation in June 2016 prior to herbicide treatment in September 2016. The lake management plan recommends continued herbicide treatment to knock back the bulk of the infestation. The association also plans to utilize diver assisted suction harvesting (DASH) as a management technique. While harvested plants will remove nutrients from the system, milfoil die-off from herbicide treatments combined with sediment release from suction harvesting activities will likely release nutrient into the water column and increase the potential for algal blooms. Already the system has experienced short-term cyanobacteria blooms. Locke Lake has been assessed as impaired (5-M) for chlorophyll-a and total phosphorus in the 2016 assessment cycle.
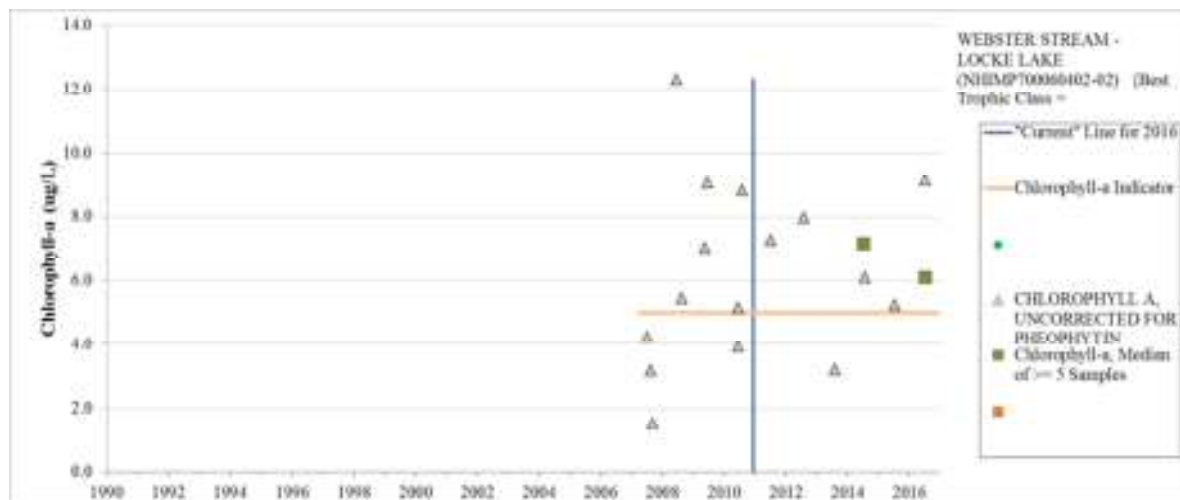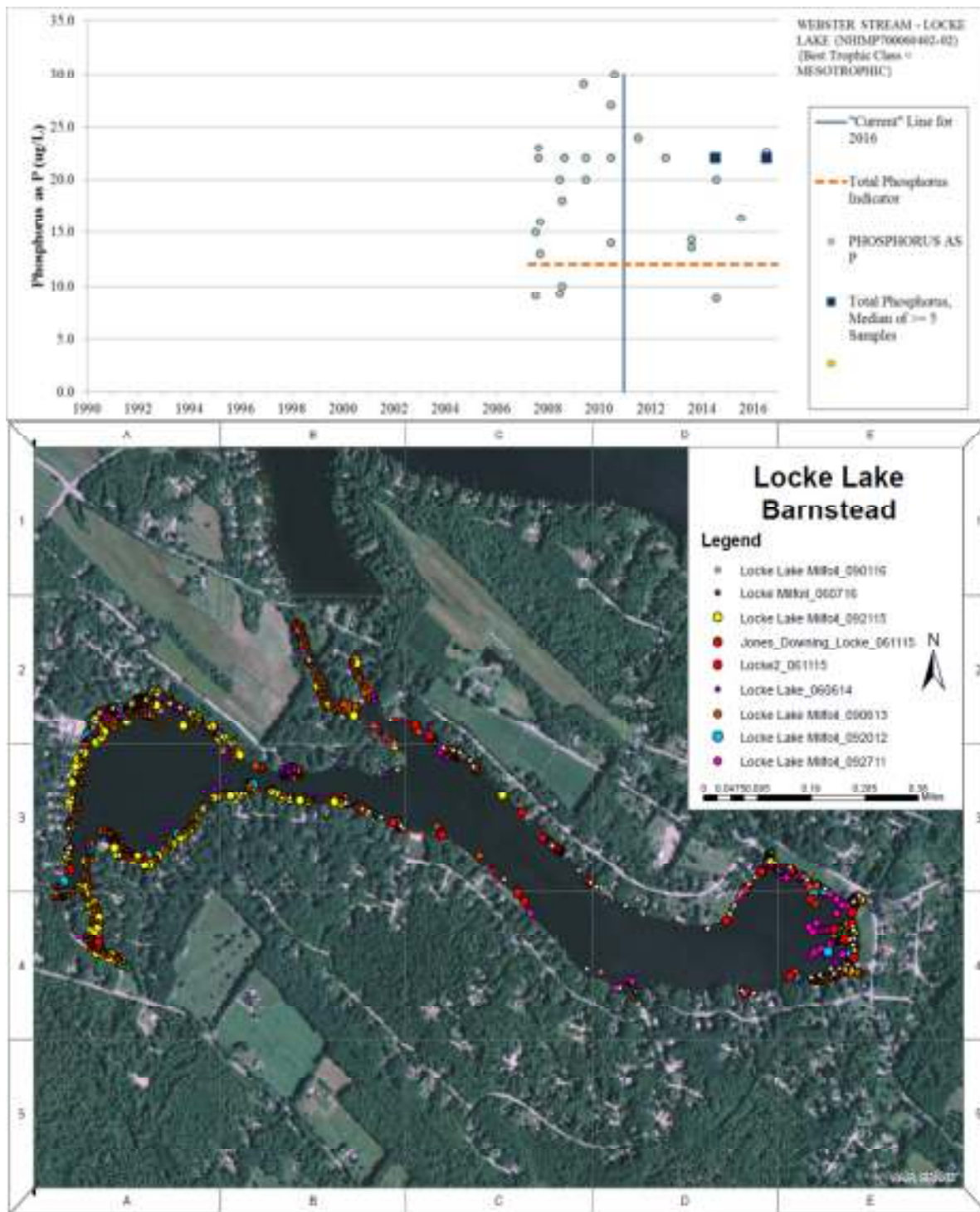
JENNESS POND (NHLAK700060502-06)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
JENNESS POND	NHLAK700060502-06	Chlorophyll-a	Northwood	3-PNS	5-M
		Total Phosphorus		2-M	5-M

The chlorophyll-a median has exceeded the threshold for oligotrophic lakes in the last two assessment cycles with no indication that levels are decreasing. Monthly VLAP monitoring suggests chlorophyll-a levels more frequently exceed the threshold since 2009. The total phosphorus median hovers at the threshold but has not exceeded it; however total phosphorus will be listed at impaired due to the stressor response matrix.
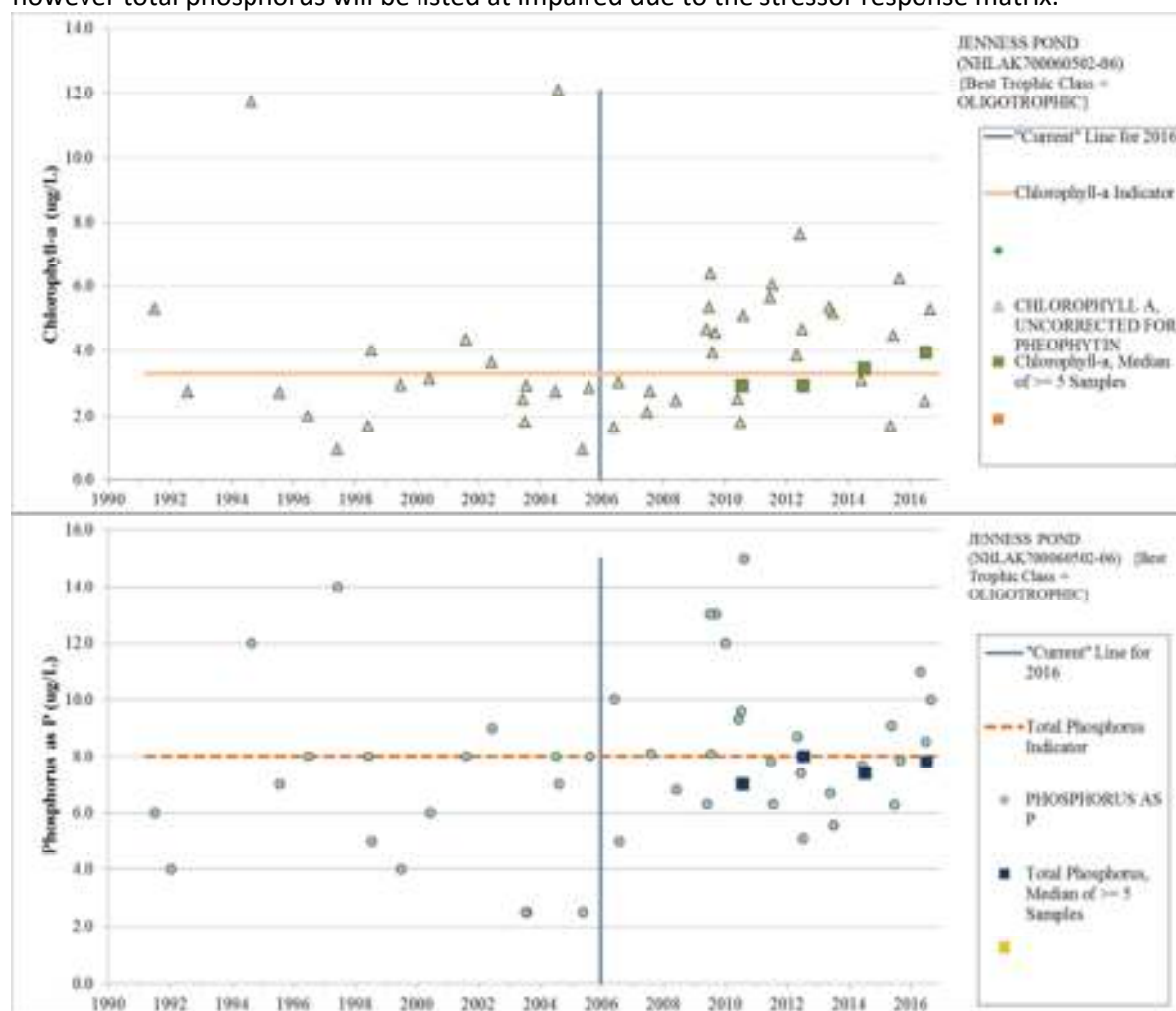
Cyanobacteria

SUNRISE LAKE (NHLAK600030601-05-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
SUNRISE LAKE	NHLAK600030601-05-01	Cyanobacteria hepatotoxic microcystins	MIDDLETON	3-ND	5-M

Multiple blooms some of which were spatially widely documented. Sunrise Lake, Beach #1 Middleton 5/27/2016 *Anabaena* 200,000 cells/mL; Sunrise Lake, Main Beach Middleton 5/27/2016 *Anabaena* 2.5 million cells/mL; Sunrise

Lake, Dowling Cove Middleton 6/2/2016 *Anabaena* 5,000 cells/mL; Sunrise Lake 8/6/2014 *Anabaena circinalis* 540,000 cells/mL.

DOWNING POND (NHLAK700020102-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
DOWNING POND	NHLAK700020102-02	Cyanobacteria hepatotoxic microcystins	NEW DURHAM	3-ND	5-M

Multiple documented *Anabaena* blooms; 6/30/2016, 120,000 cells/mL; 7/15/2016, 170,000 cells/mL; 7/21/2016, 142,200 cells/mL; 8/25/2015, 150,000 cells/mL; 8/17/2015, 4,100,000 cells/mL. This is part of the Merrymeeting River issues.

JONES POND (NHIMP700020102-01-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
JONES POND	NHIMP700020102-01-01	Cyanobacteria hepatotoxic microcystins	NEW DURHAM	3-ND	5-M

8/12/2016 *Oscillatoria* 2.3 million cells/mL. This is part of the Merrymeeting River issues.

HOTHOLE POND (NHLAK700060302-05)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
HOTHOLE POND	NHLAK700060302-05	Cyanobacteria hepatotoxic microcystins	LOUDON	3-ND	5-M

12 samples were collected and counted in 2016. One sample (8/25/2016) was 72,000 cells/ml of *Anabaena*. Cyanobacteria was present in every sample from August 12 to October 16 (last sample of season) at 4,000 to 72,000 cells/ml. There is limited other water quality data for this waterbody but the 2004 dissolved oxygen showed that the entire 8 meters of the hypolimnion was less than 1 mg/L dissolved oxygen indicating likely phosphorus regenerations from the sediments.

DARRAH POND (NHLAK700061002-01-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
DARRAH POND	NHLAK700061002-01-01	Cyanobacteria hepatotoxic microcystins	LITCHFIELD	3-ND	5-P

Multiple blooms documented; 7/26/2016, *Phormidium* 1,400,000 cells/mL; 7/28/2016, *Phormidium* 1,000,000 cells/mL; 8/3/2016 *Phormidium* and *Oscilltoria* 180,000 cells/mL; 8/10/2015 likely *Oscillatoria* 140,000 cells/mL; 8/14/2015 Unknown cyanobacteria 83,000 cells/mL; 8/21/2015 *Oscillatoria* 140,000 cells/mL.

pH

EAST BRANCH SACO RIVER - UNNAMED BROOK - GARDINER BROOK - WHITTEN BROOK (NHRIV600020301-03

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
EAST BRANCH SACO RIVER - UNNAMED BROOK - GARDINER BROOK - WHITTEN BROOK	NHRIV600020301-03	pH	BARTLETT	3-ND	5-M

2016: 11 of 18 (61%) of the samples collected between 2013 and 2016 were below 6.5, which triggered new impairment for 2016 cycle. All samples were collected at station 06-EBS under varying weather and flow conditions during the summer/fall.

Notes:
   pH-GRAB = pH value from a grab sample.
   "Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
   "Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

BRANCH RIVER (NHRIV600030402-06)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BRANCH RIVER	NHRIV600030402-06	pH	MILTON	2-G	5-M

2016: New grab sample data collected in 2014, 2015 and 2016 at station 01-BRA triggered new impairment. 17 of the last 21 samples were non-supports (low pH between 6.15 - 6.44) collected in June through September of each year. The non-supporting samples were collected at flows between 0.04 - 1.51 cfsm on the Cocheco River gage (01072800) and during varying weather conditions (0-2" 3 day total). Datalogger at station 00G-BRA in 2010 showed all full support.

Notes:

pH-24HR_MIN = pH minimum value from a datalogger deployment.

pH-24HR_MAX = pH maximum value from a datalogger deployment.

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

EAGLE ROCK BROOK (NHRIV801060402-46)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
EAGLE ROCK BROOK	NHRIV801060402-46	pH	SUNAPEE	3-PNS	5-M

2016: 8 of 30 (27%) grab samples collected between 2010 – 2016 were non-supports due to being below 6.5, which triggered the new impairment for the 2016 cycle. All samples were collected at station SUNSUN5151 with flows between 0.07 – 1.47 cfsm on the Sugar River gage (01152500) from May to October.

Notes:

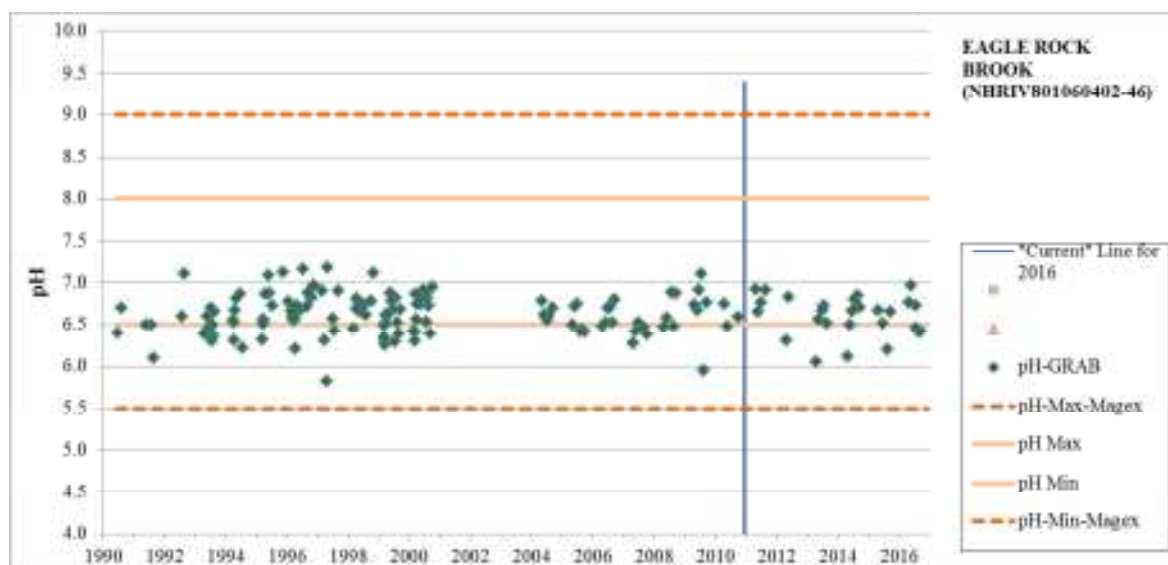pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
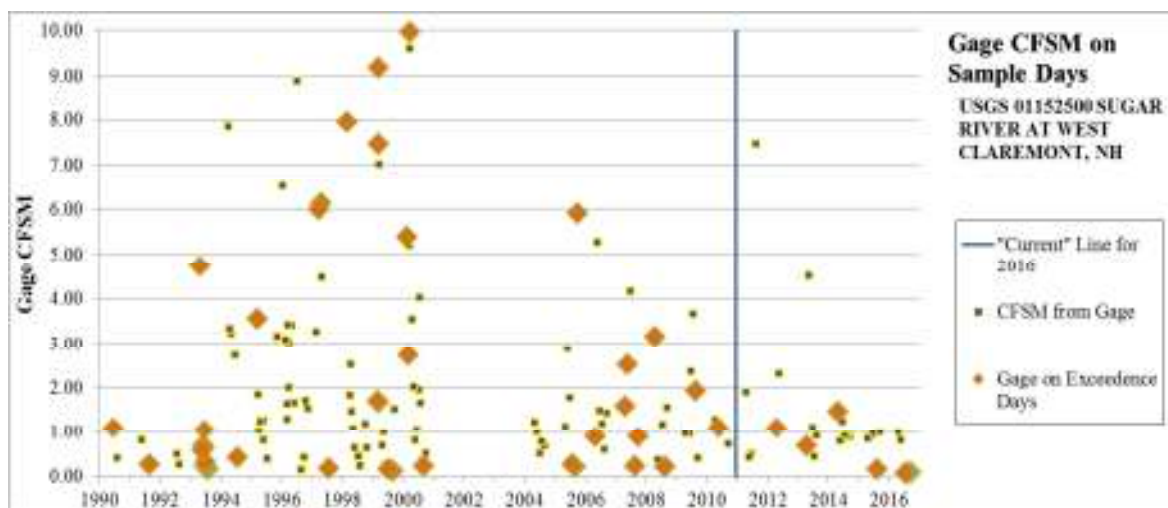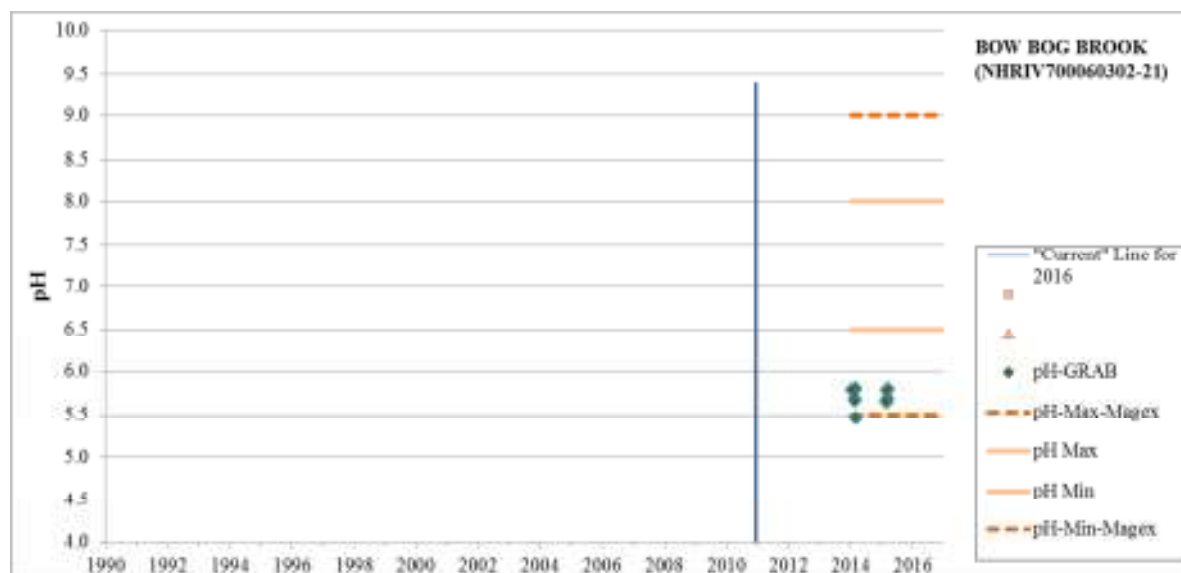
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

BOW BOG BROOK (NHRIV700060302-21)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BOW BOG BROOK	NHRIV700060302-21	pH	Bow	3-ND	5-M

2016: Grab sample data collected in 2014 and 2015 at station 02-BBB triggered the new impairment in the 2016 cycle. All 13 grab samples were non-supports collected in February through April. Two of the non-supports were just below the pH minimum magex of 5.5 with readings of 5.46. The non-supporting samples were collected at flows of 0.72 and 7.28 cfsm on the Soucook River gage (01089100) and during varying weather conditions (0.00 and 0.93" preceding three day precipitation). The river has been categorized as 5-M for the 2016 cycle.

Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
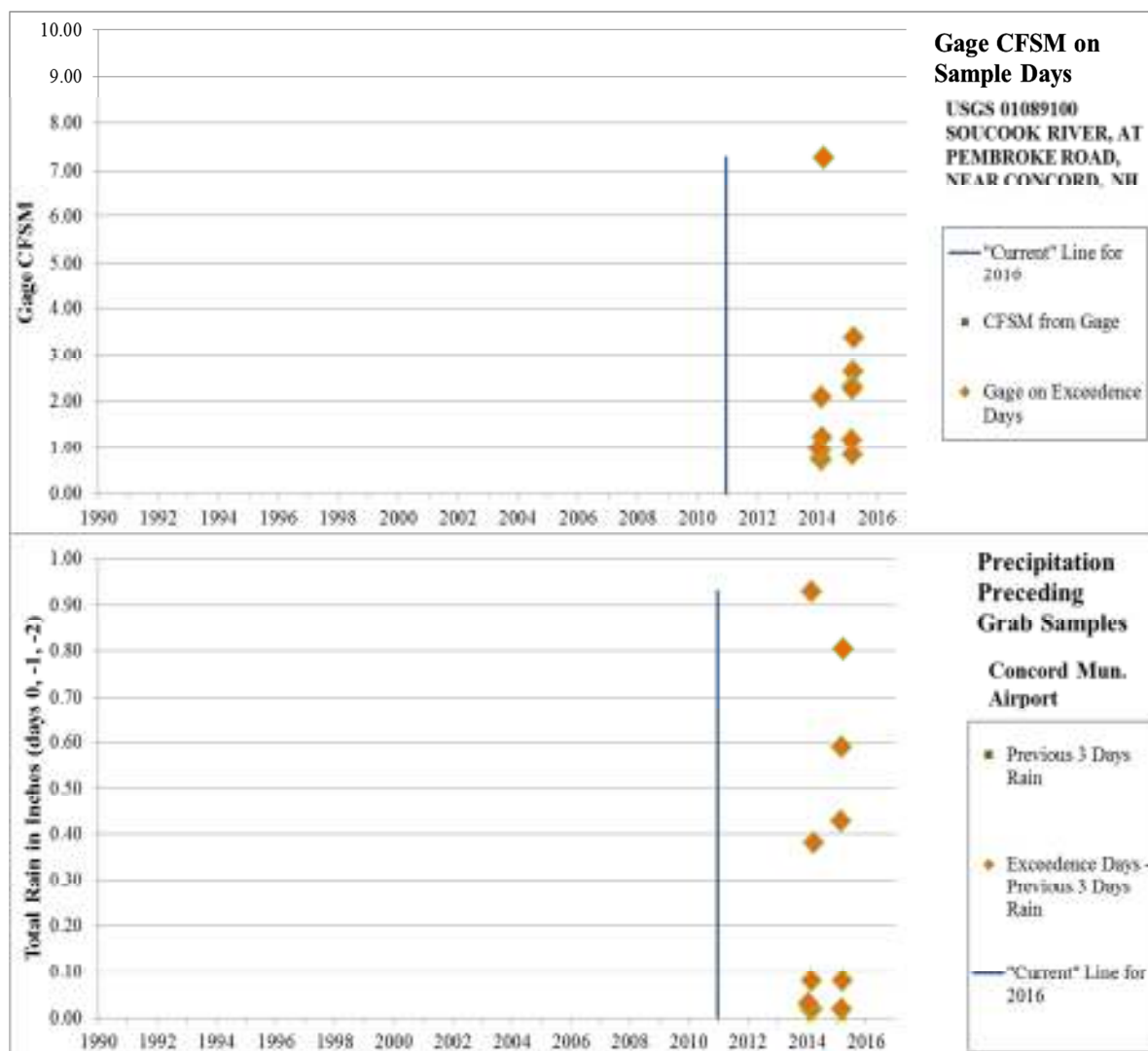
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

PAVILLON BROOK (NHRIV700060905-25)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
PAVILLON BROOK	NHRIV700060905-25	pH	AMHERST	3-ND	5-M

2016: Grab sample data collected in 2015 and 2016 at station BABAMHPB triggered the impairment for the 2016 cycle. 4 of 6 (67%) samples were non-supports (low pH between 5.51 – 6.12) collected in June and July. The non-supporting samples were collected at flows between 0.31 – 0.94 cfsm on the Souhegan River gage (01094000) and during varying weather conditions (0.00-0.57" preceding three day precipitation).

PAVILLON BROOK
(NHRIV700060905-25)

Gage CFSM on
Sample Days

USGS 01094000
SOUHEGAN RIVER
AT MERRIMACK, NH

Precipitation
Preceding
Grab Samples

Hudson 1 SSE

Notes:

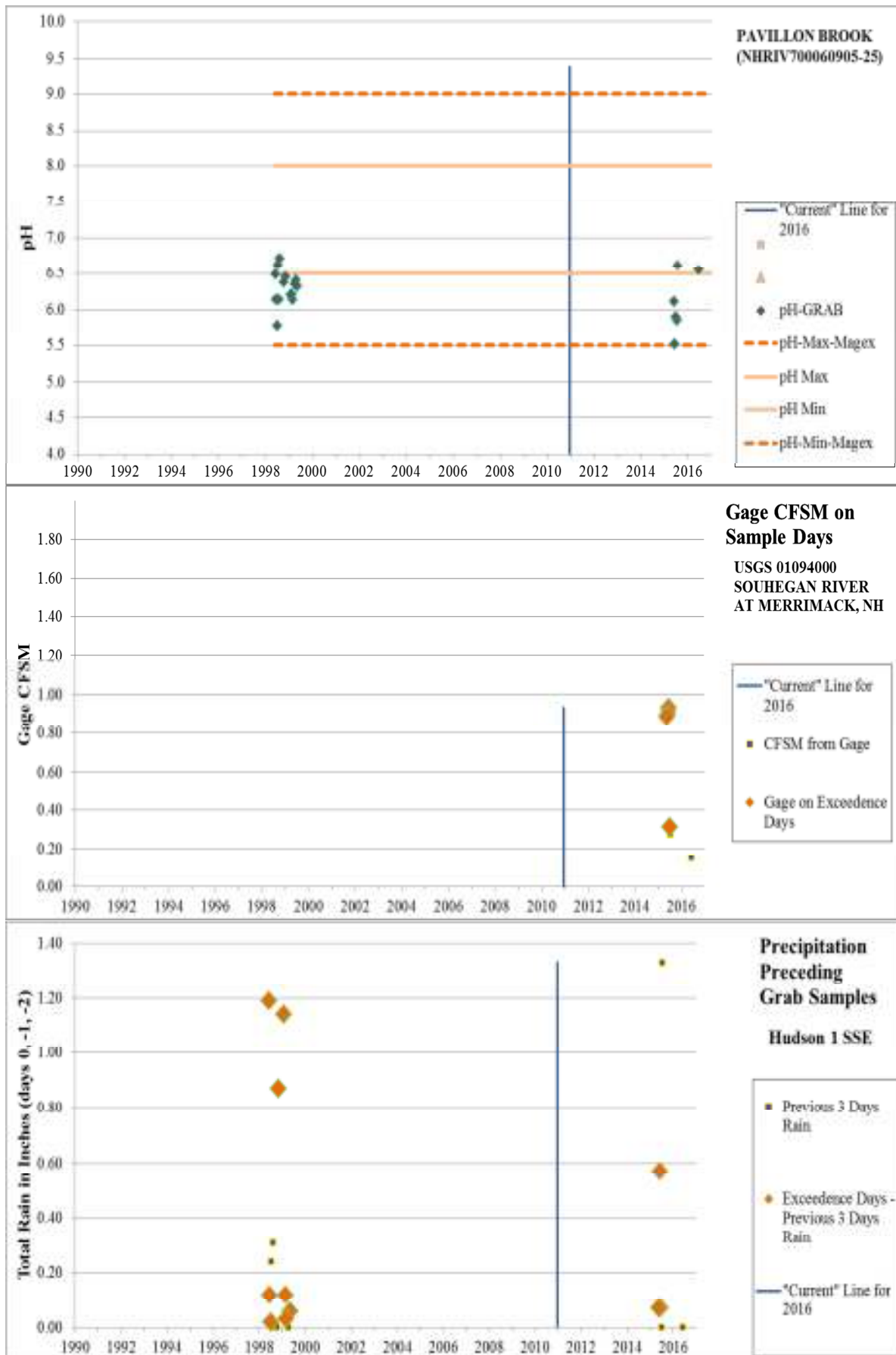   pH-GRAB = pH value from a grab sample.

   "Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

   "Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

UNNAMED BROOK - TO ISINGLASS RIVER (NHRIV600030605-12)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
UNNAMED BROOK - TO ISINGLASS RIVER	NHRIV600030605-12	pH	STRAFFORD	3-ND	5-P

2016: Grab sample data collected in 2014 and 2015 at stations 02-XIG and 02D-XIG triggered the new impairment in the 2016 cycle. 27 of 29 (93%) grab samples were non-supports (low pH between 5.19 – 6.47) collected in June through October. The non-supporting samples were collected at flows between 0.11 – 5.92 cfsm on the Cocheco River gage (01072800) and during varying weather conditions (0.00 - 2.78" preceding three day precipitation).

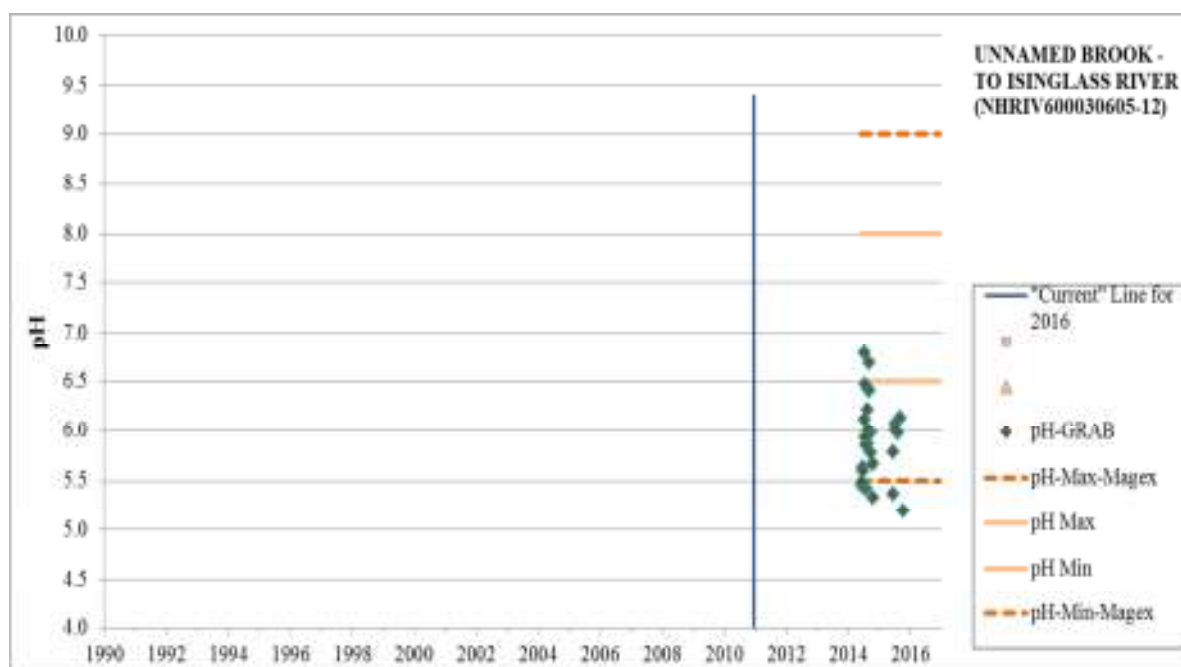
Notes:

   pH-GRAB = pH value from a grab sample.

   "Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

   "Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

UNNAMED BROOK - TO LAMPREY RIVER (NHRIV600030703-17)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016

UNNAMED BROOK - TO LAMPREY RIVER	NHRIV600030703-17	pH	EPPING	3-ND	5-M

2016: Grab sample data collected in 2014 and 2015 at stations 04-XLP and 05-XLP triggered the new impairment in the 2016 cycle. 11 of 29 (38%) grab samples were non-supports (low pH between 5.69 – 6.48) collected in June through November. The non-supporting samples were collected at flows between 0.08 – 1.37 cfsm on the Lamprey River gage (01073500) and during varying weather conditions (0.00 – 0.85" preceding three day precipitation).

Notes:
  pH-GRAB = pH value from a grab sample.
  "Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
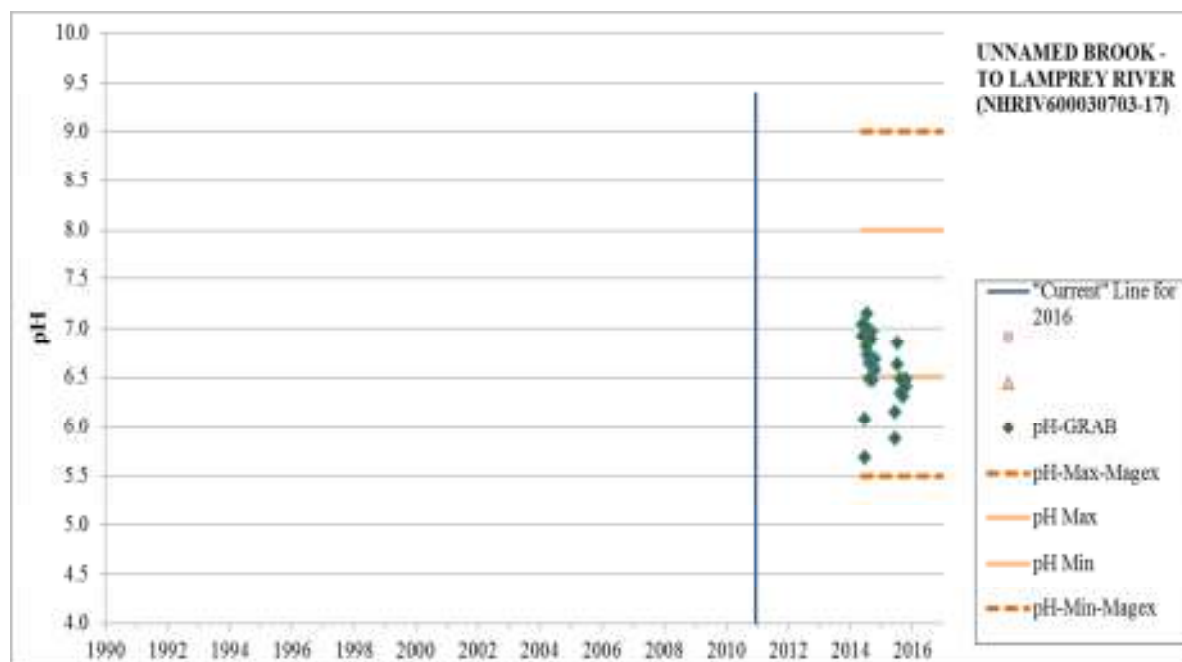 "Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

FORDWAY BROOK (NHRIV600030801-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
FORDWAY BROOK	NHRIV600030801-01	pH	RAYMOND	3-ND	5-P

2016: Grab sample data collected in 2014 and 2015 at stations 06-FDW and 06F-FDW triggered the new impairment in the 2016 cycle. 24 of 26 (92%) grab samples were non-supports (low pH between 5.06 – 6.45) collected in June through October. The non-supporting samples were collected at flows between 0.41 – 3.78 cfsm on the Merrimack River gage (01092000) and during varying weather conditions (0.00 – 2.12" preceding three day precipitation).
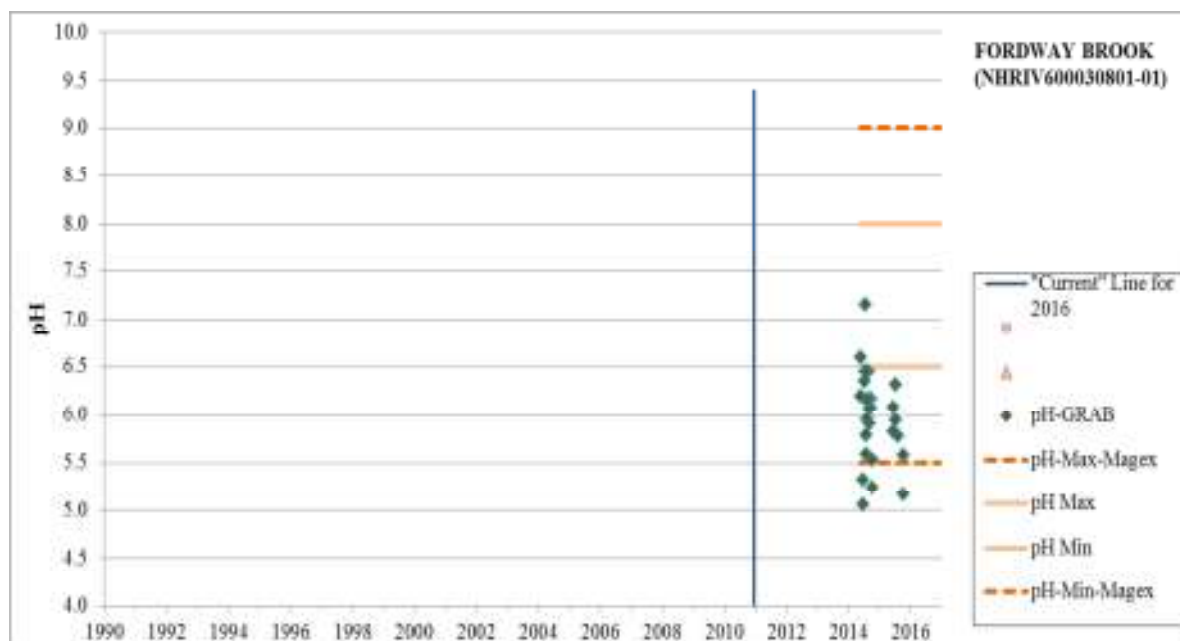
Notes:

  pH-GRAB = pH value from a grab sample.

  "Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

  "Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

MILLER BROOK (NHRIV600030404-04)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
MILLER BROOK	NHRIV600030404-04	pH	MILTON	3-ND	5-P

2016: Grab sample data collected in 2014 and 2015, at stations 04-XML and 04T-XML triggered the new impairment in the 2016 cycle. 19 of 23 (83%) grab samples were non-supports (low pH between 5.41 – 6.38) collected in June through October. The non-supporting samples were collected at flows between 0.11 – 5.92 cfsm on the Cocheco River gage (01072800) and during varying weather conditions (0.00-2.94" preceding three day precipitation).
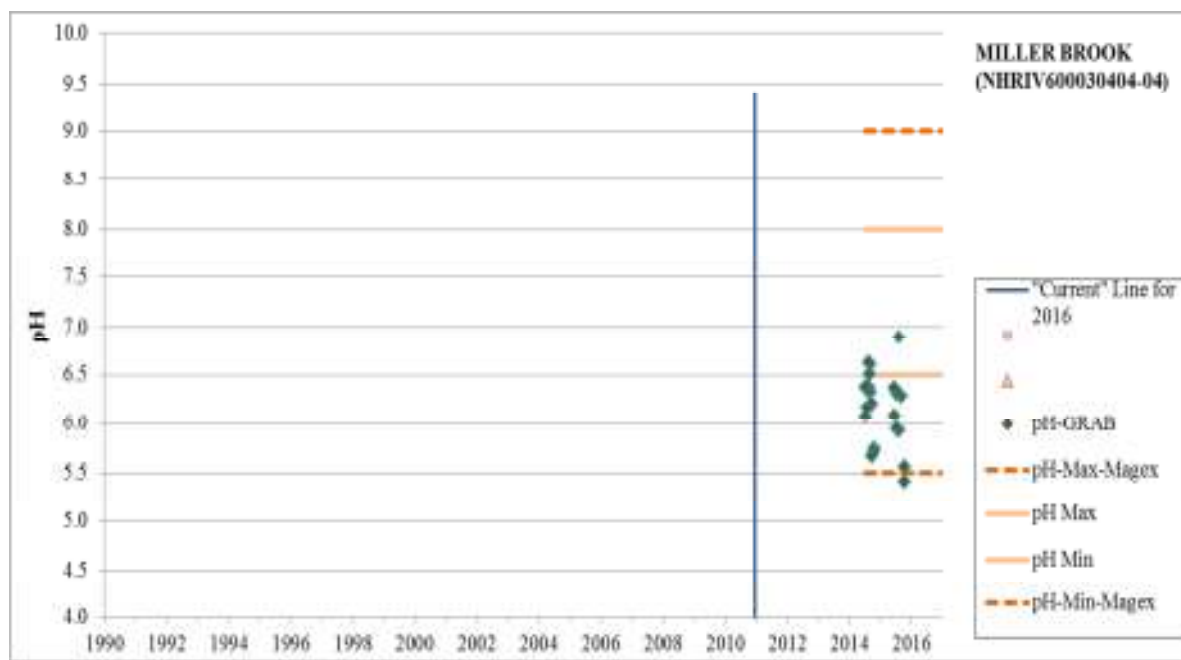
Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

BRANCH RIVER (NHRIV600030401-08)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BRANCH RIVER	NHRIV600030401-08	pH	WAKEFIELD	3-ND	5-M

2016: Grab sample data collected in 2014, 2015, and 2016 at station 06-BRA triggered the new impairment in the 2016 cycle. All 21 grab samples were non-supports (low pH between 5.85 – 6.39) collected in June through September. The non-supporting samples were collected at flows between 0.04 – 1.51 cfsm on the Cocheco River gage (01072800) and during varying weather conditions (0.02-1.73" preceding three day precipitation).

Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

STONY BROOK (NHRIV600020803-07)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
STONY BROOK	NHRIV600020803-07	pH	FREEDOM	3-ND	5-M

2016: Grab sample data collected in 2015 at station OL-10 triggered the new impairment in the 2016 cycle. 12 of 36 (33%) grab samples were non-supports (low pH between 5.91 – 6.48) collected in May through October. The non-supporting samples were collected at flows between 0.15 – 11.24 cfsm on the Bearcamp River gage (01064801) and during varying weather conditions (0.01-1.12" preceding three day precipitation).
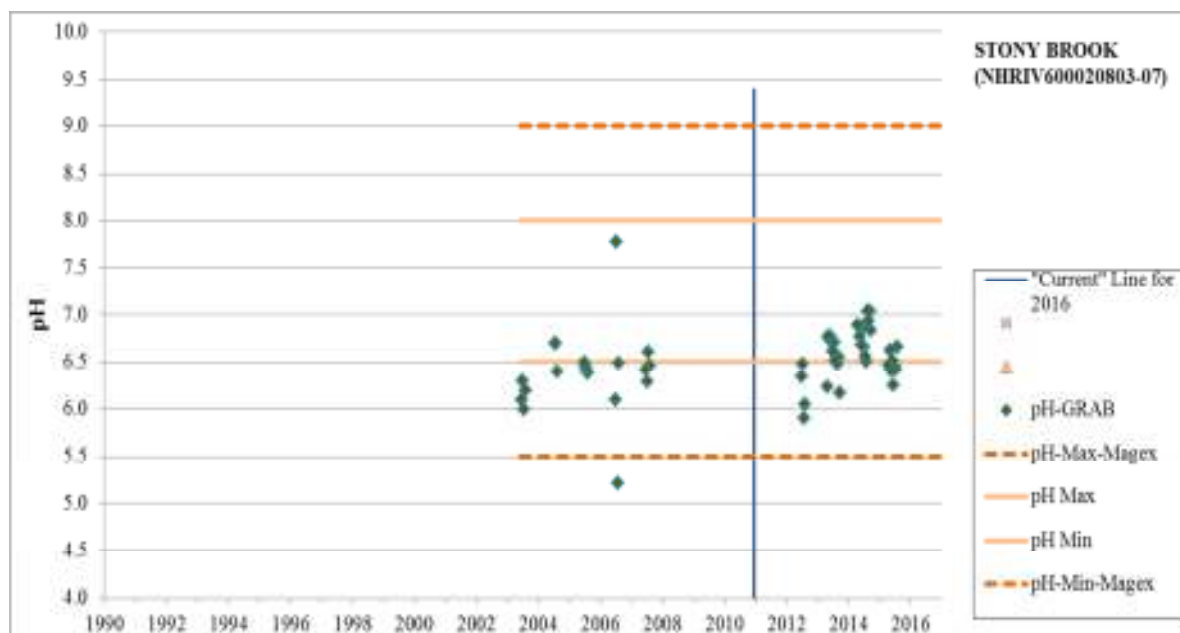
Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

UNNAMED BROOK - FROM LONG POND TO PURITY LAKE (NHRIV600020803-04)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
UNNAMED BROOK - FROM LONG POND TO PURITY LAKE	NHRIV600020803-04	pH	EATON	3-ND	5-M

2016: Grab sample data collected in 2013 at station GEA-1 triggered the new impairment in the 2016 cycle. 12 of 29 (41%) samples were non-supports (low pH between 5.51 – 6.46) collected in May through October. The non-supporting samples were collected at flows between 0.93 – 4.78 cfsm on the Saco River gage (01064500) and during varying weather conditions (0.01 - 1.45" preceding three day precipitation).
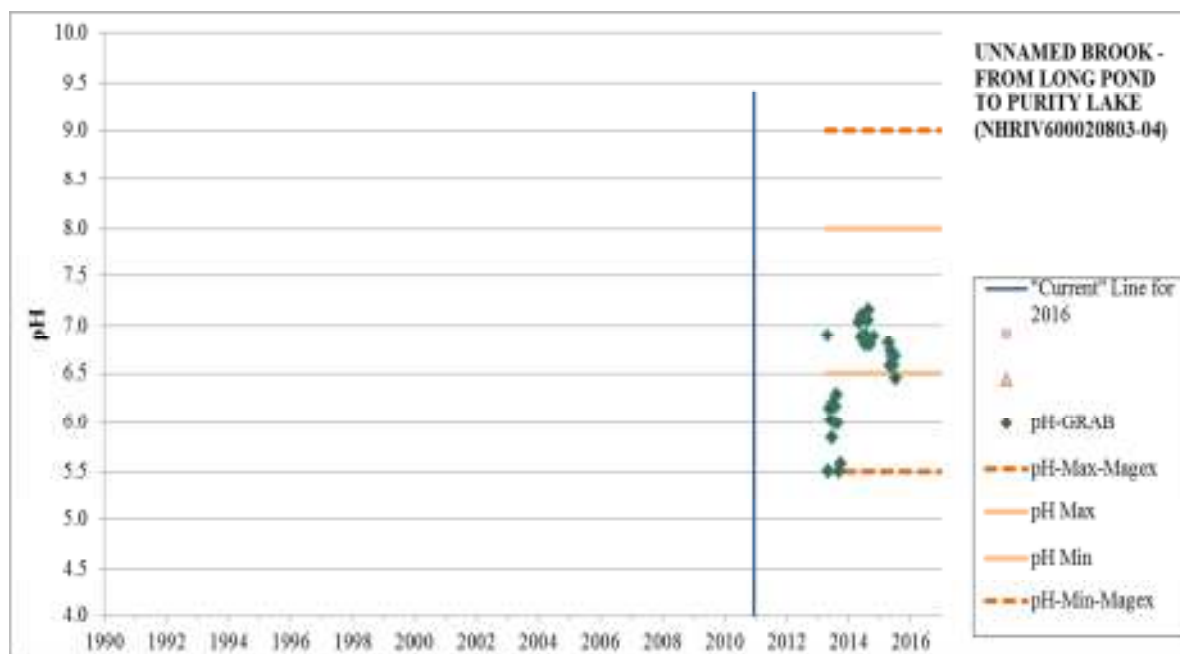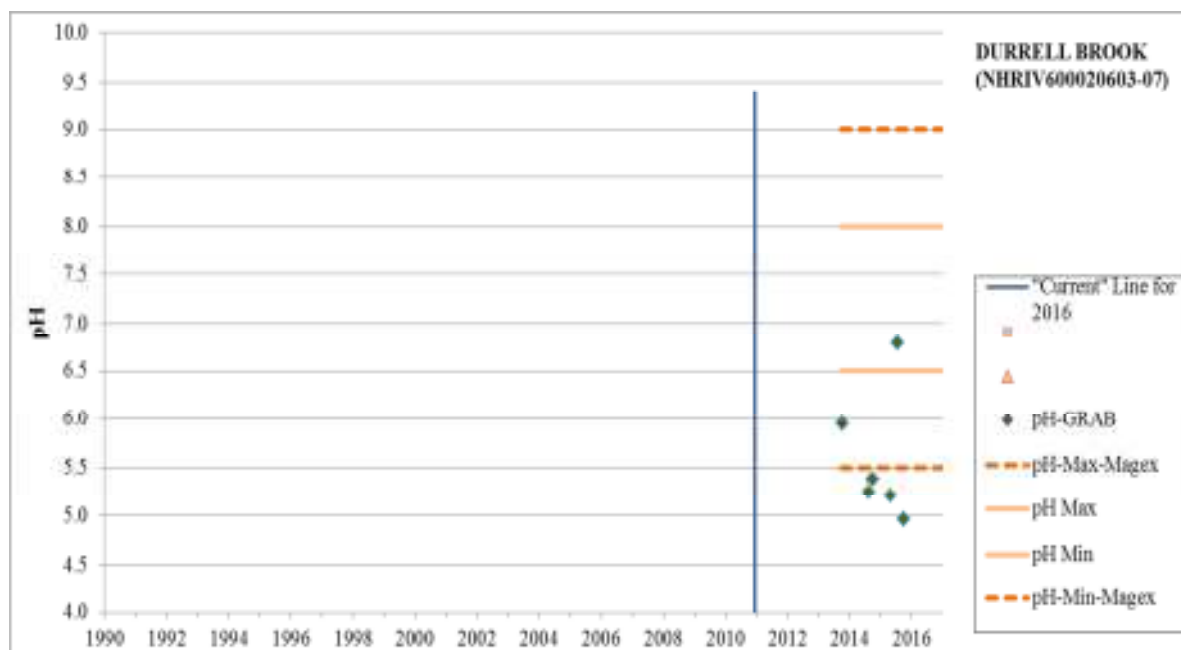
Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

DURRELL BROOK (NHRIV600020603-07)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
DURRELL BROOK	NHRIV600020603-07	pH	TAMWORTH	3-ND	5-P

2016: Grab sample data collected in 2014 and 2015 at station 00E-PGS triggered the new impairment in the 2016 cycle. 5 of 6 (83%) grab samples were non-supports (low pH between 4.97 – 5.95) collected in May through October. The non-supporting samples were collected at flows between 0.38 – 0.83 cfsm on the Bearcamp River gage (01064801) and during varying weather conditions (0.02-0.15" preceding three day precipitation).
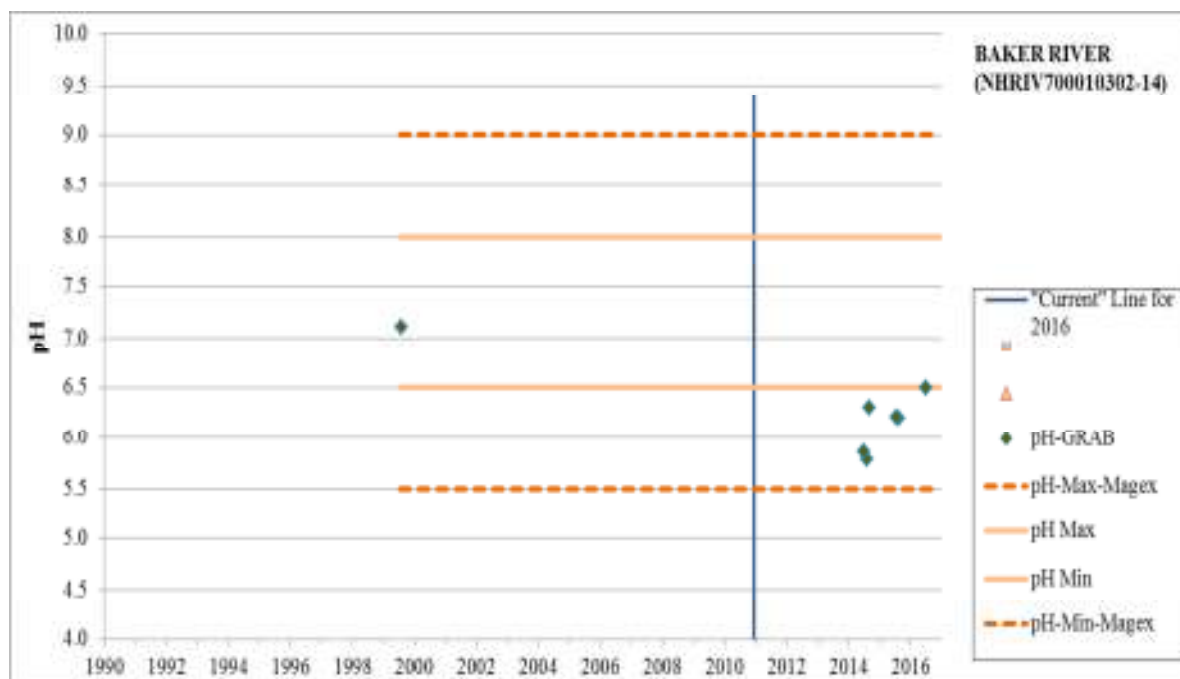
Notes:
   pH-GRAB = pH value from a grab sample.
   "Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
   "Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

BAKER RIVER (NHRIV700010302-14)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BAKER RIVER	NHRIV700010302-14	pH	WENTWORTH	3-ND	5-M

2016: Grab sample data collected in 2014 and 2015 at station 08-BKR triggered the new impairment in the 2016 cycle. 5 of 6 (83%) grab samples were non-supports (low pH between 5.79 – 6.31) collected in July through September. The non-supporting samples were collected at flows between 0.23 – 0.75 cfsm on the Baker River gage (01076000) and during varying weather conditions (0.00 – 0.54" preceding three day precipitation).

Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

BAKER RIVER (NHRIV700010303-09-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BAKER RIVER	NHRIV700010303-09-01	pH	WENTWORTH	3-ND	5-M

2016: Grab sample data collected in 2014 and 2015 at stations 07-BKR and 07A-BKR triggered the new impairment in the 2016 cycle. 9 of 10 (90%) grab samples were non-supports (low pH between 5.93 – 6.45) collected in July through September. The non-supporting samples were collected at flows between 0.21 – 0.75 cfsm on the Baker River gage (01076000) and during varying weather conditions (0.00 – 0.57" preceding three day precipitation).

Notes:

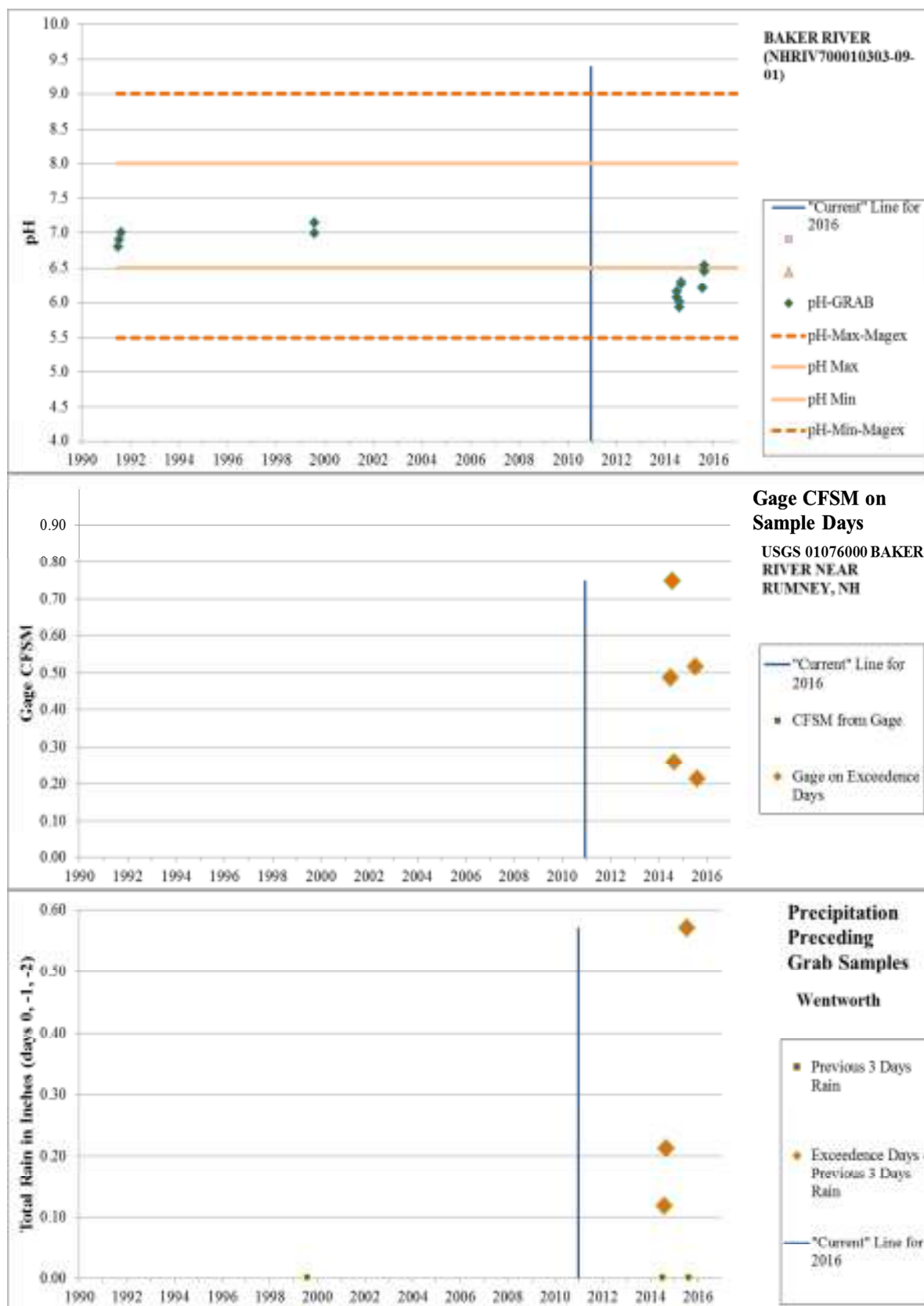pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

BAKER RIVER (NHRIV700010303-12)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BAKER RIVER	NHRIV700010303-12	pH	WENTWORTH	3-ND	5-M

2016: Grab sample data collected in 2014 and 2015 at station 06A-BKR triggered the new impairment in the 2016 cycle. 4 of 5 (80%) grab samples were non-supports (low pH between 5.88 – 6.28) collected in July through September. The non-supporting samples were collected at flows between 0.21 – 0.75 cfsm on the Baker River gage (01076000) and during varying weather conditions (0.00 – 0.21" preceding three day precipitation).

Notes:

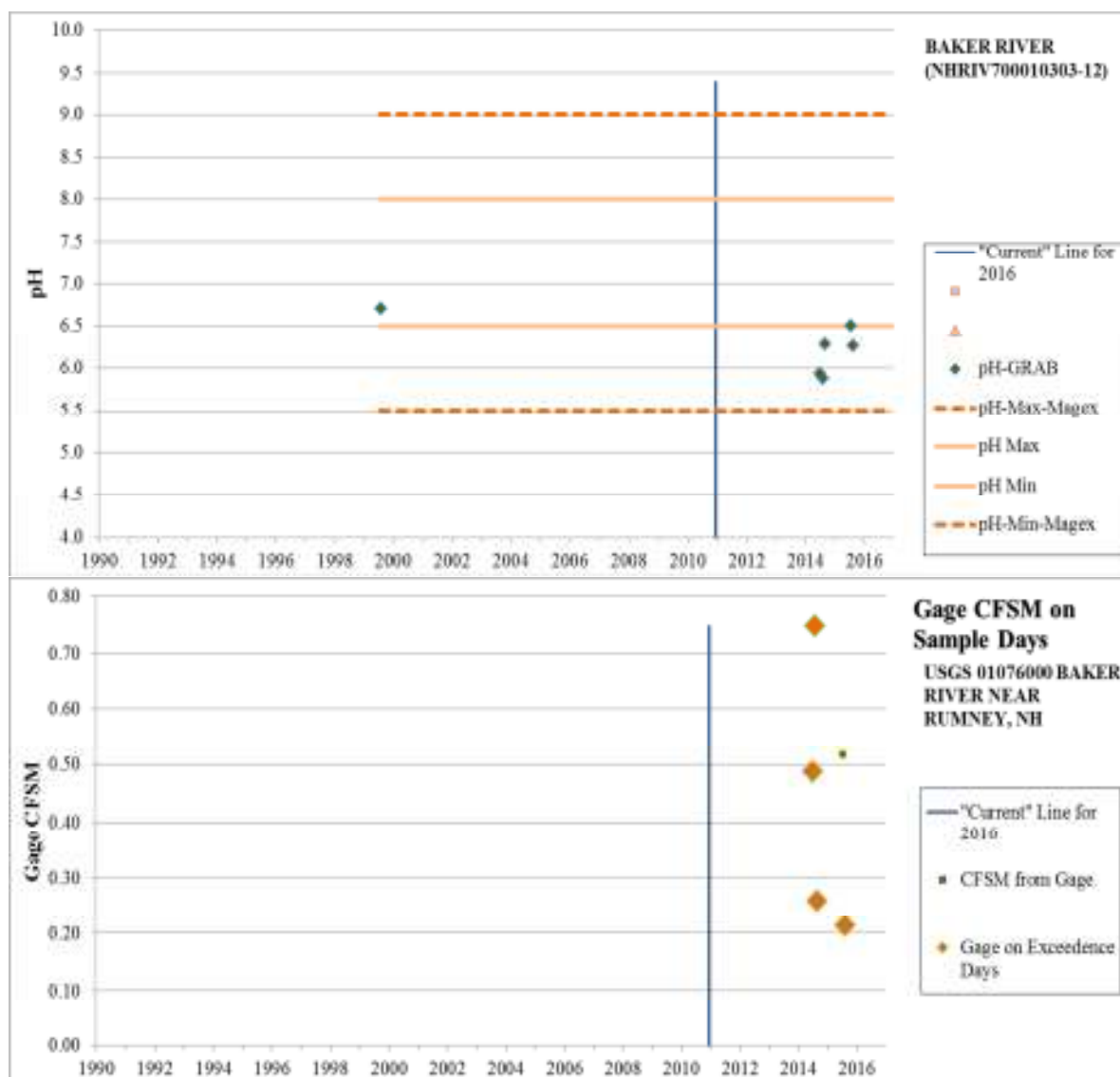pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
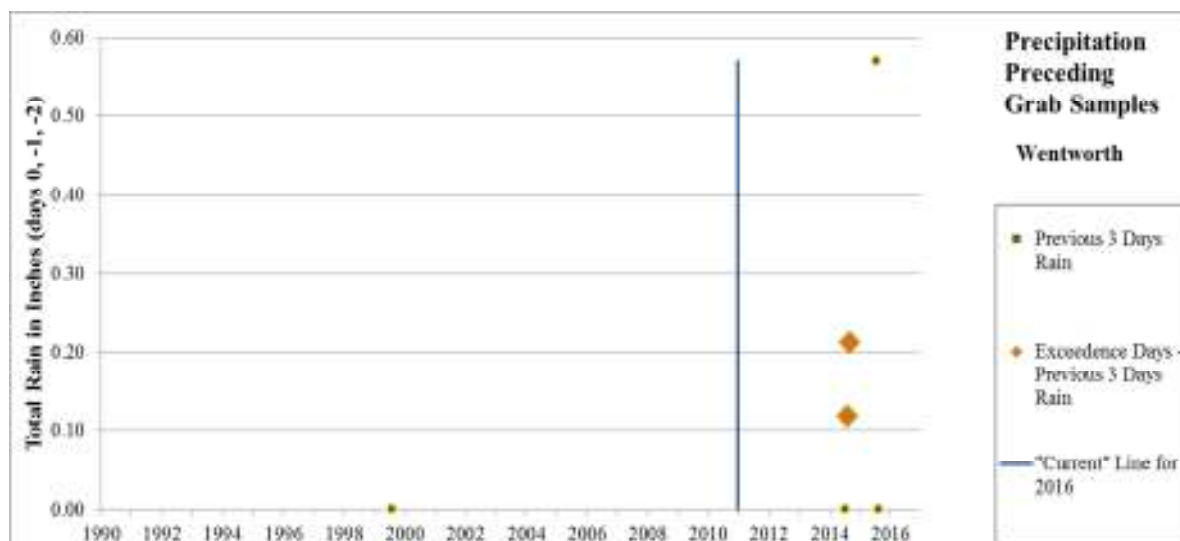
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

SOUTH BRANCH BAKER RIVER (NHRIV700010304-12)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
SOUTH BRANCH BAKER RIVER	NHRIV700010304-12	pH	WENTWORTH	3-PNS	5-M

2016: Grab sample data collected in 2013 through 2015 at station 06-SBR triggered the new impairment in the 2016 cycle. 6 of 18 (33%) grab samples were non-supports (low pH between 6.09 – 6.41) collected in January through August. The non-supporting samples were collected at flows between 0.52 – 4.10 cfsm on the Baker River gage (01076000) and during varying weather conditions (0.01 – 1.07" preceding three day precipitation).
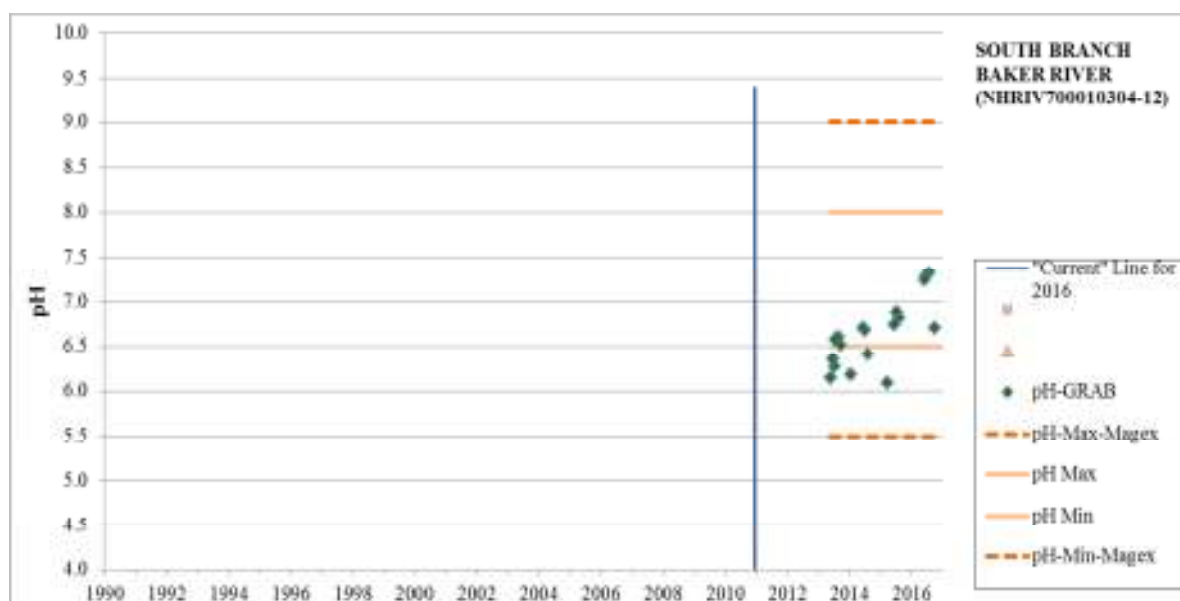
Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
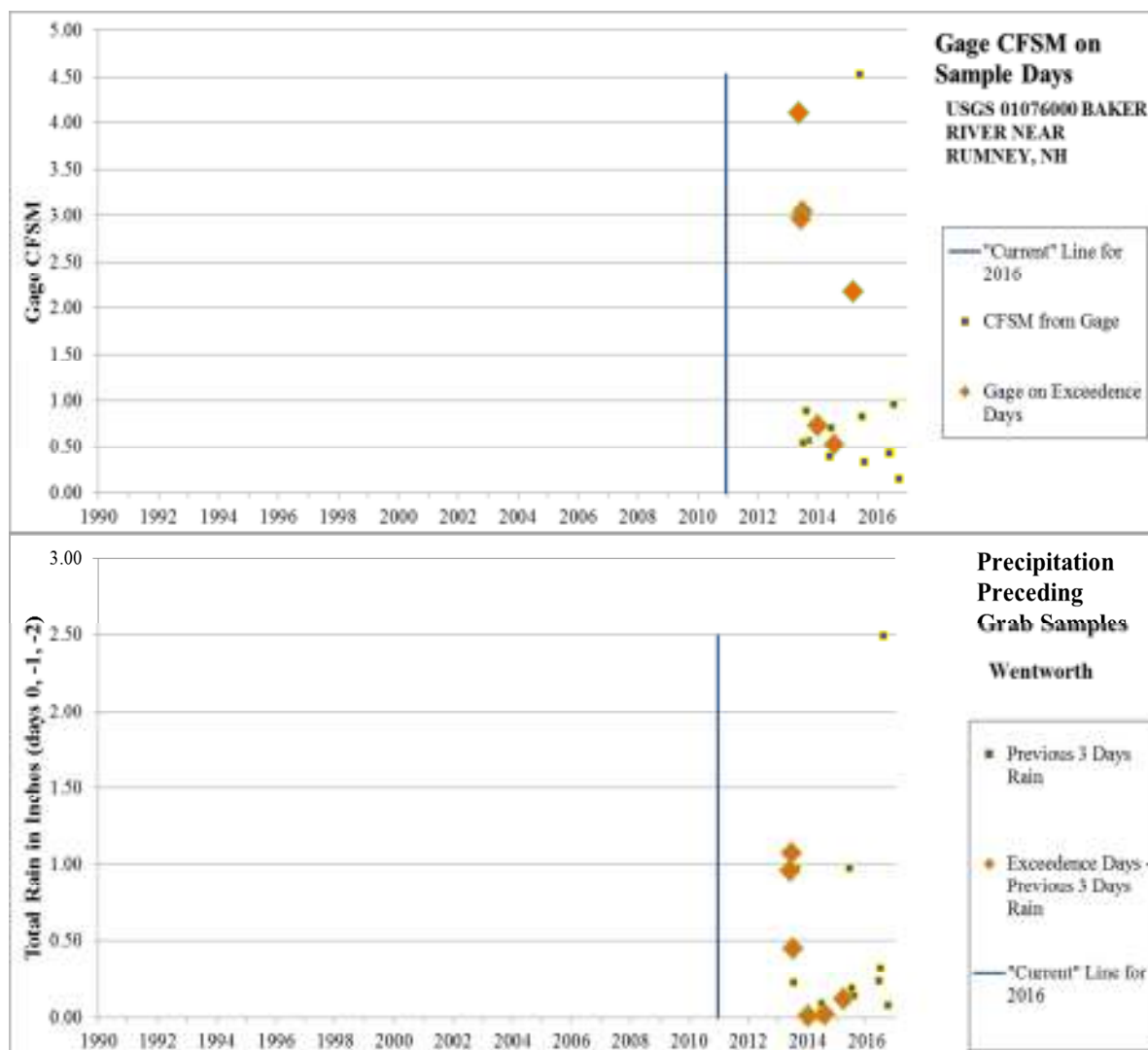
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

BAKER RIVER (NHRIV700010305-11)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BAKER RIVER	NHRIV700010305-11	pH	RUMNEY	3-ND	5-M

2016: Grab sample data collected in 2014 through 2016 at stations 04-BKR, 04G-BKR, and 05-BKR triggered the new impairment in the 2016 cycle. 17 of 21 (81%) grab samples were non-supports (low pH between 5.86 – 6.49) collected in June through September. The non-supporting samples were collected at flows between 0.15 – 1.73 cfsm on the Baker River gage (01076000) and during varying weather conditions (0.00 – 0.53" preceding three day precipitation).

BAKER RIVER
(NHRIV700010305-11)

Gage CFSM on
Sample Days

USGS 01076000 BAKER
RIVER NEAR
RUMNEY, NH

Precipitation
Preceding
Grab Samples

Wentworth

Notes:
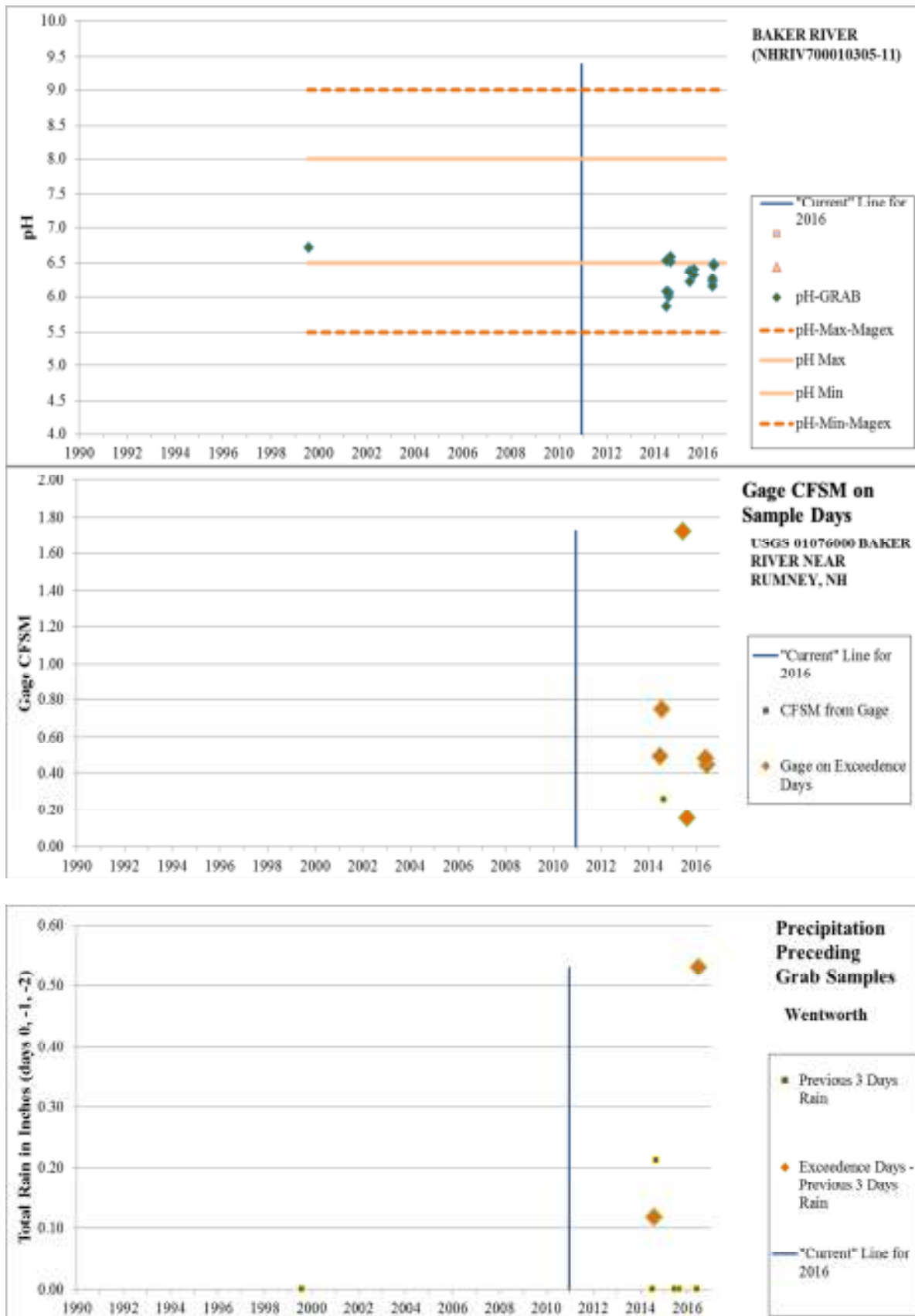   pH-GRAB = pH value from a grab sample.
   "Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing

Methodology.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

BAKER RIVER (NHRIV700010307-11)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BAKER RIVER	NHRIV700010307-11	pH	PLYMOUTH	3-PNS	5-M

2016: Grab sample data collected in 2014 through 2016 at stations 01-BKR, 02-BKR, 03-BKR, and 01A-BKR triggered the new impairment in the 2016 cycle. 24 of 29 (83%) grab samples were non-supports (low pH between 5.74 – 6.48) collected in May through September. The non-supporting samples were collected at flows between 0.15 – 4.12 cfsm on the Baker River gage (01076000) and during varying weather conditions (0.00 – 0.91" preceding three day precipitation).

Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
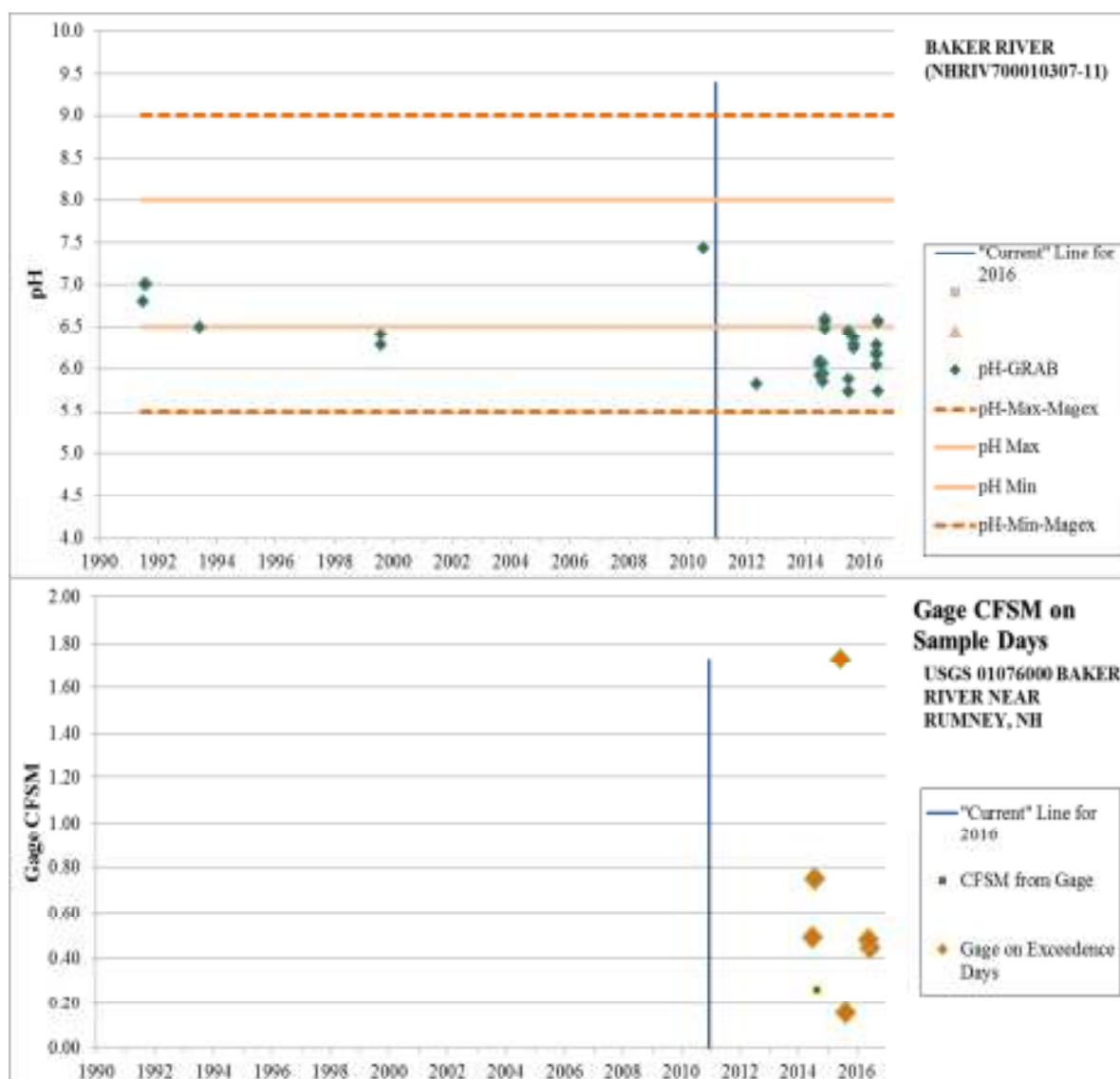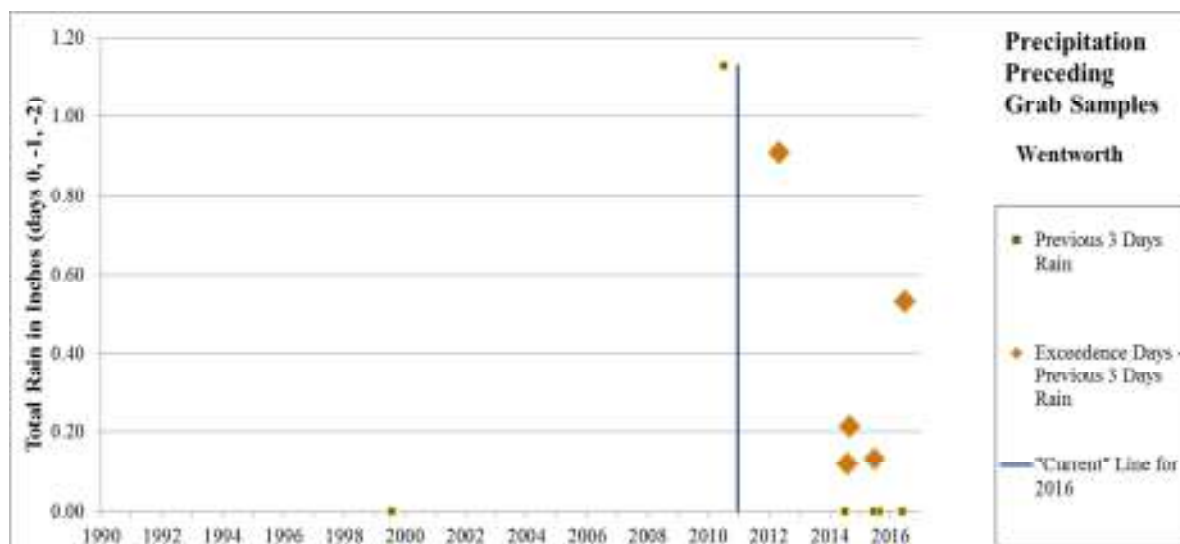
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

BEAR POND BROOK (NHRIV700020108-07)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BEAR POND BROOK	NHRIV700020108-07	pH	CENTER HARBOR	3-ND	5-M

2016: Grab sample data collected in 2015 and 2016 at stations BEACENO and HAWCENBPI triggered the new impairment in the 2016 cycle. All six of the grab samples were non-supports (low pH between 6.08 – 6.29) collected in March through August. The non-supporting samples were collected at flows between 0.34 – 2.78 cfsm on the Baker River gage (01076000) and during varying weather conditions (0.05 – 0.37" preceding three day precipitation).
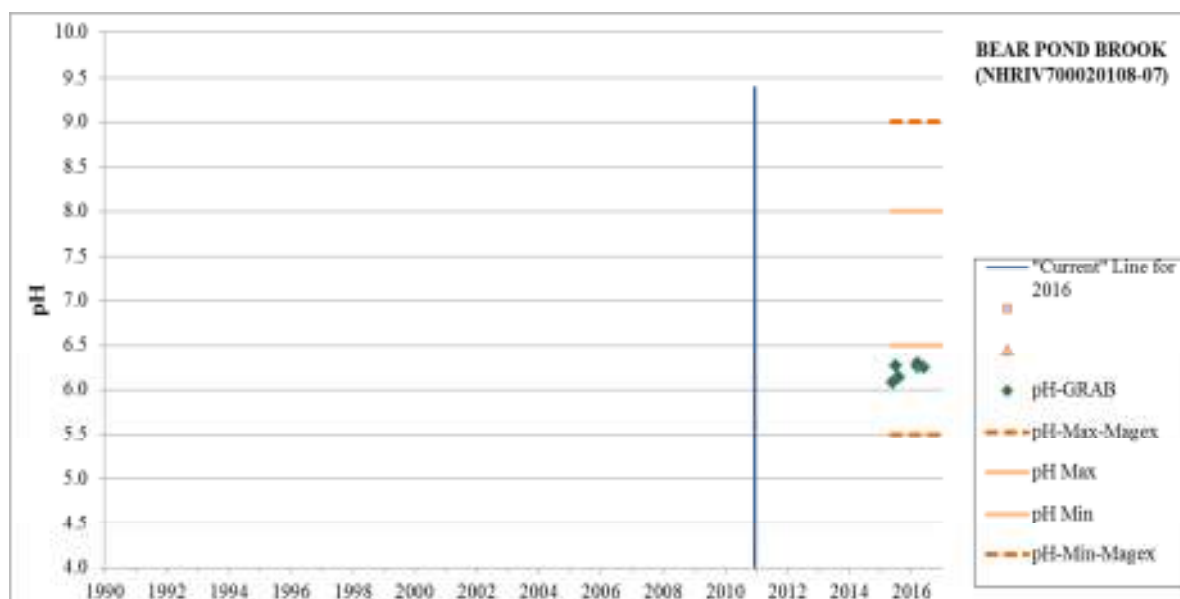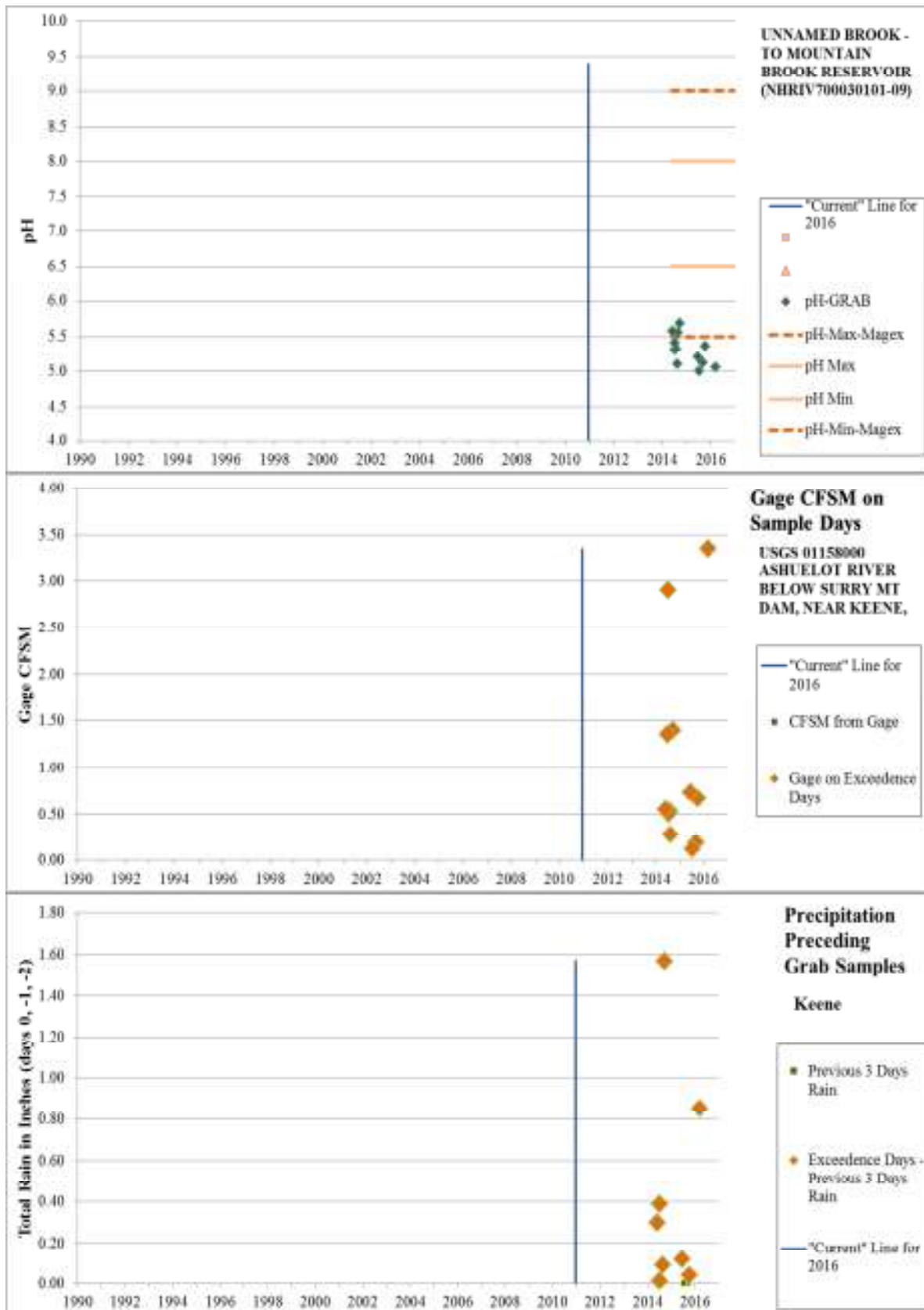
Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

UNNAMED BROOK - TO MOUNTAIN BROOK RESERVOIR (NHRIV700030101-09)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
UNNAMED BROOK - TO MOUNTAIN BROOK RESERVOIR	NHRIV700030101-09	pH	JAFFREY	3-ND	5-P

2016: Grab sample data collected in 2014, 2015, and 2016 at station 08C-XMT triggered the new impairment in the 2016 cycle. All 12 of the grab samples were non-supports (low pH between 5.00 – 5.69) collected in March through October. The non-supporting samples were collected at flows between 0.12 – 3.36 cfsm on the Ashuelot River gage (01158000) and during varying weather conditions (0.00 – 1.57" preceding three day precipitation).

UNNAMED BROOK - TO MOUNTAIN BROOK RESERVOIR (NHRIV700030101-09)

- "Current" Line for 2016
- pH-GRAB
- pH-Max-Magex
- pH Max
- pH Min
- pH-Min-Magex

Gage CFSM on Sample Days

USGS 01158000 ASHUELOT RIVER BELOW SURRY MT DAM, NEAR KEENE,

- "Current" Line for 2016
- CFSM from Gage
- Gage on Exceedence Days

Precipitation Preceding Grab Samples

Keene

- Previous 3 Days Rain
- Exceedence Days - Previous 3 Days Rain
- "Current" Line for 2016

Notes:
   pH-GRAB = pH value from a grab sample.
   "Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

UNNAMED BROOK - TO HODGE POND (NHRIV700030101-22)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
UNNAMED BROOK - TO HODGE POND	NHRIV700030101-22	pH	JAFFREY	3-ND	5-P

2016: Grab sample data collected in 2014, 2015, and 2016 at station 03-XHG triggered the new impairment in the 2016 cycle. 6 of 7 (86%) grab samples were non-supports (pH between 5.00 – 8.27) collected in March through October. The non-supporting samples were collected at flows between 0.15 – 2.73 cfsm on the Contoocook River gage (01082000) and during varying weather conditions (0.00 – 3.04"preceding three day precipitation).

Notes:

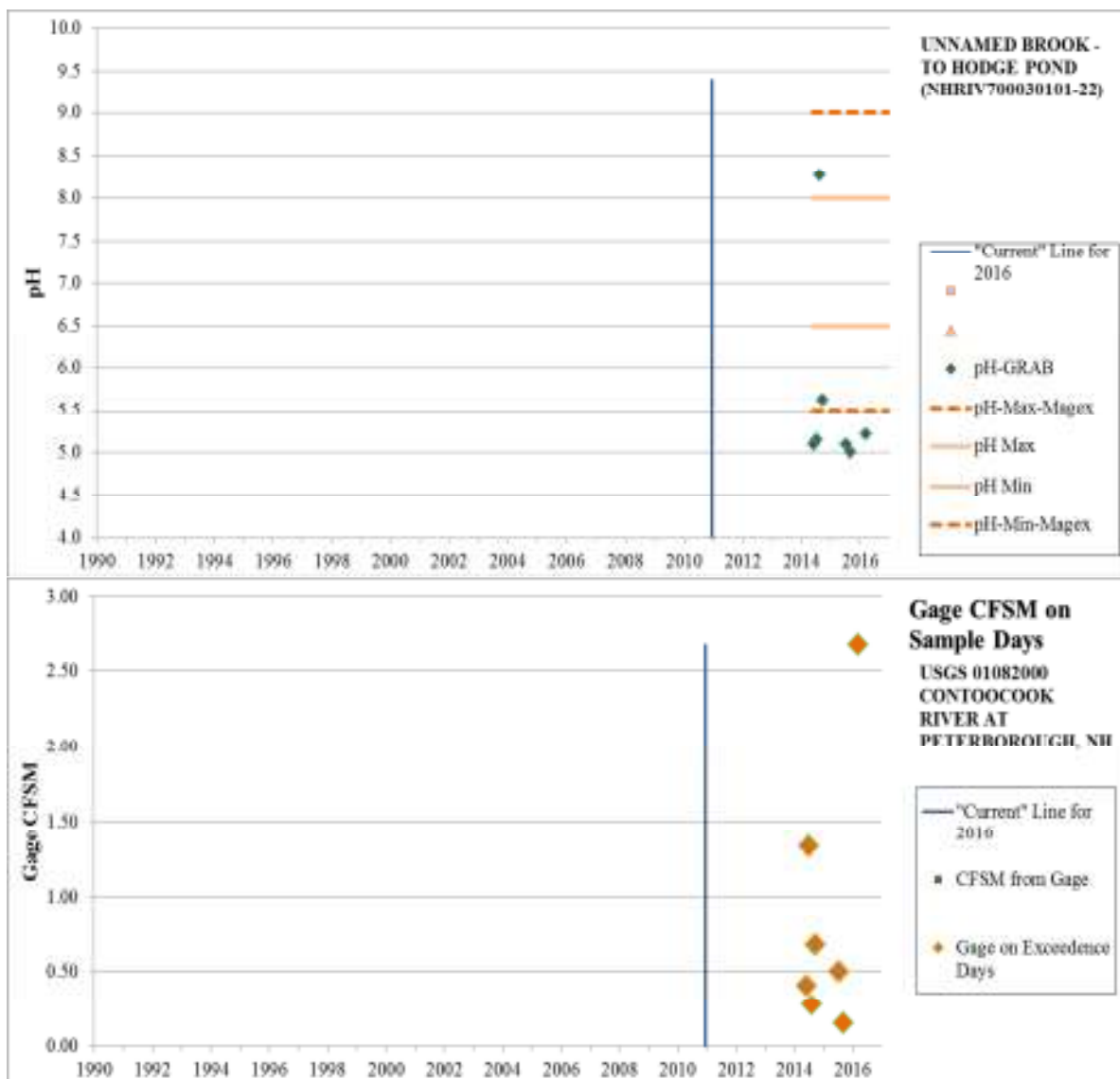pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
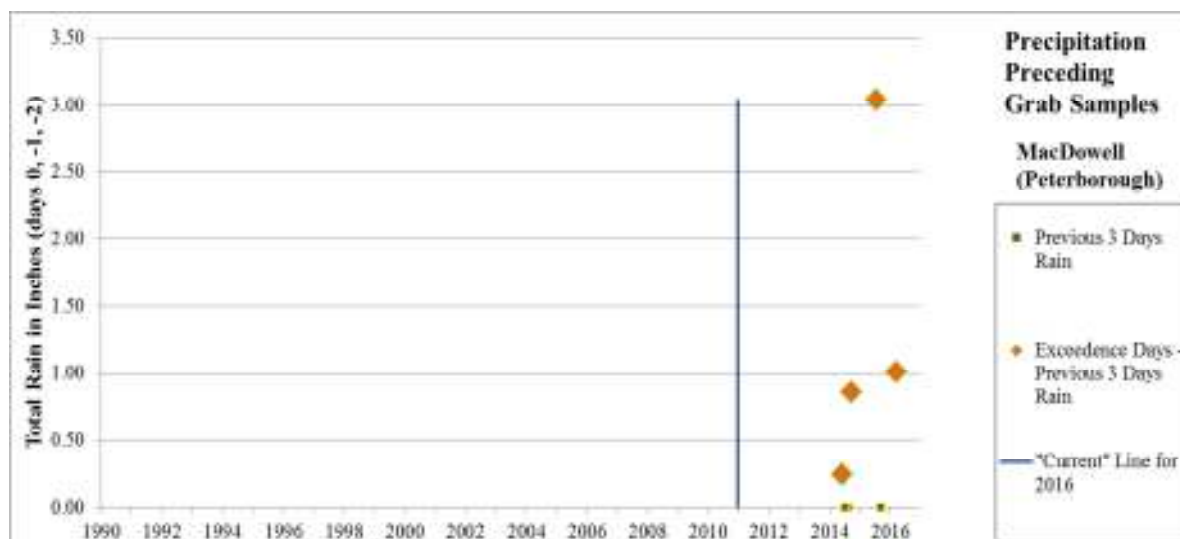
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

STONY BROOK - UNNAMED BROOK (NHRIV700030101-35)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
STONY BROOK - UNNAMED BROOK	NHRIV700030101-35	pH	JAFFREY	3-ND	5-P

2016: Grab sample data collected in 2014, 2015, and 2016 at stations 02-STO, 02-XST, 05-STO, and 06-STO triggered the new impairment in the 2016 cycle. 42 of 44 (95%) grab samples were non-supports (low pH between 5.01 – 6.47) collected in March through October. The non-supporting samples were collected at flows between 0.15 – 2.88 cfsm on the Contoocook River gage (01082000) and during varying weather conditions (0.00 – 3.04" preceding three day precipitation).
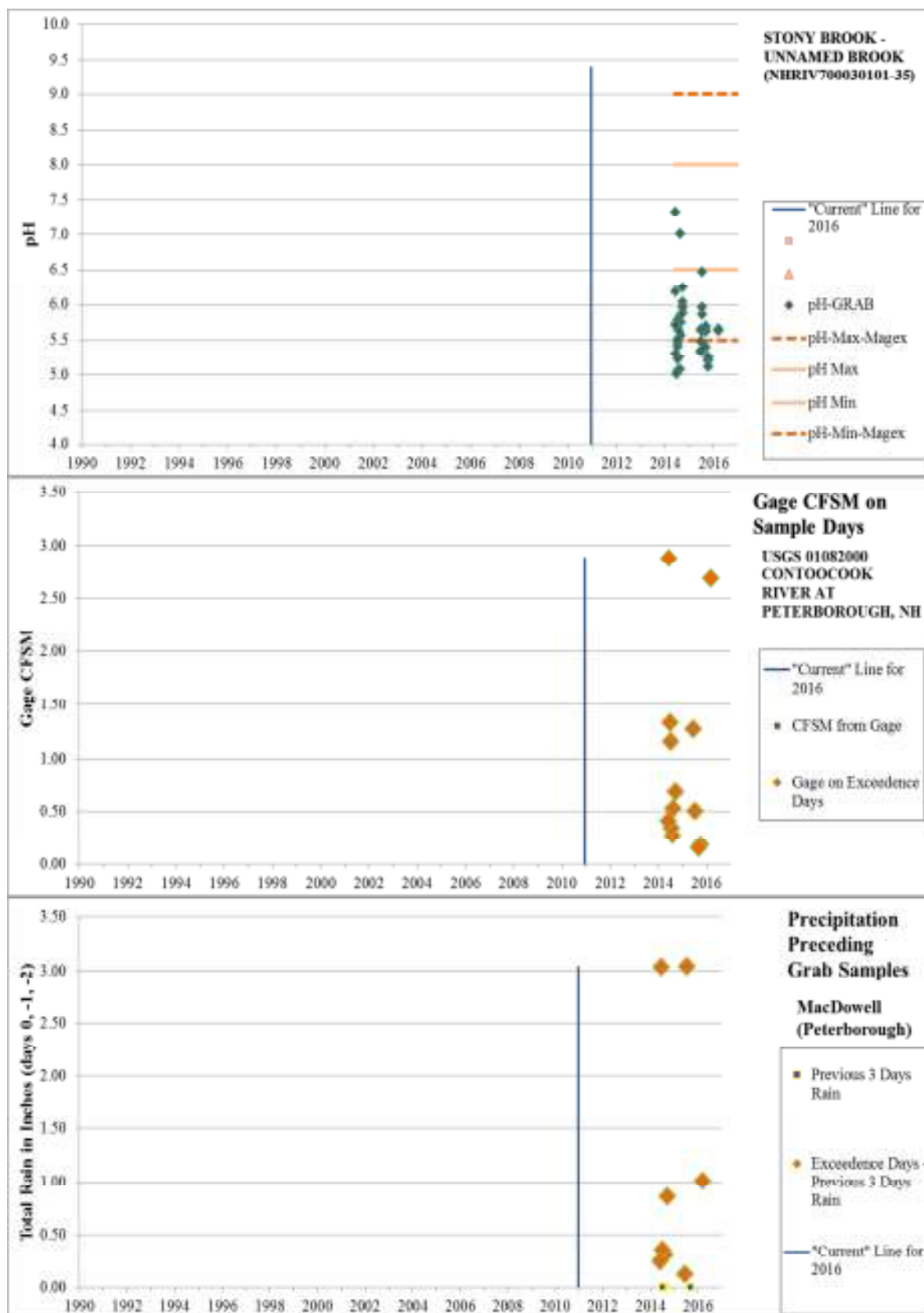
Notes:
pH-GRAB = pH value from a grab sample.
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

NORTH BRANCH - INTERLOCKEN DAM TO STEELS PD (NHRIV700030202-18)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
NORTH BRANCH - INTERLOCKEN DAM TO STEELS PD	NHRIV700030202-18	pH	ANTRIM	3-PNS	5-M

2016: Grab sample data collected in 2014, 2015, and 2016 at station 04-NBC triggered the new impairment in the 2016 cycle. 11 of 13 (85%) grab samples were non-supports (low pH between 5.53 – 6.42) collected in July through October. The non-supporting samples were collected at flows between 0.07 – 8.10 cfsm on the Ashuelot River gage (01158000) and during varying weather conditions (0.00 – 2.15" preceding three day precipitation).

Notes:

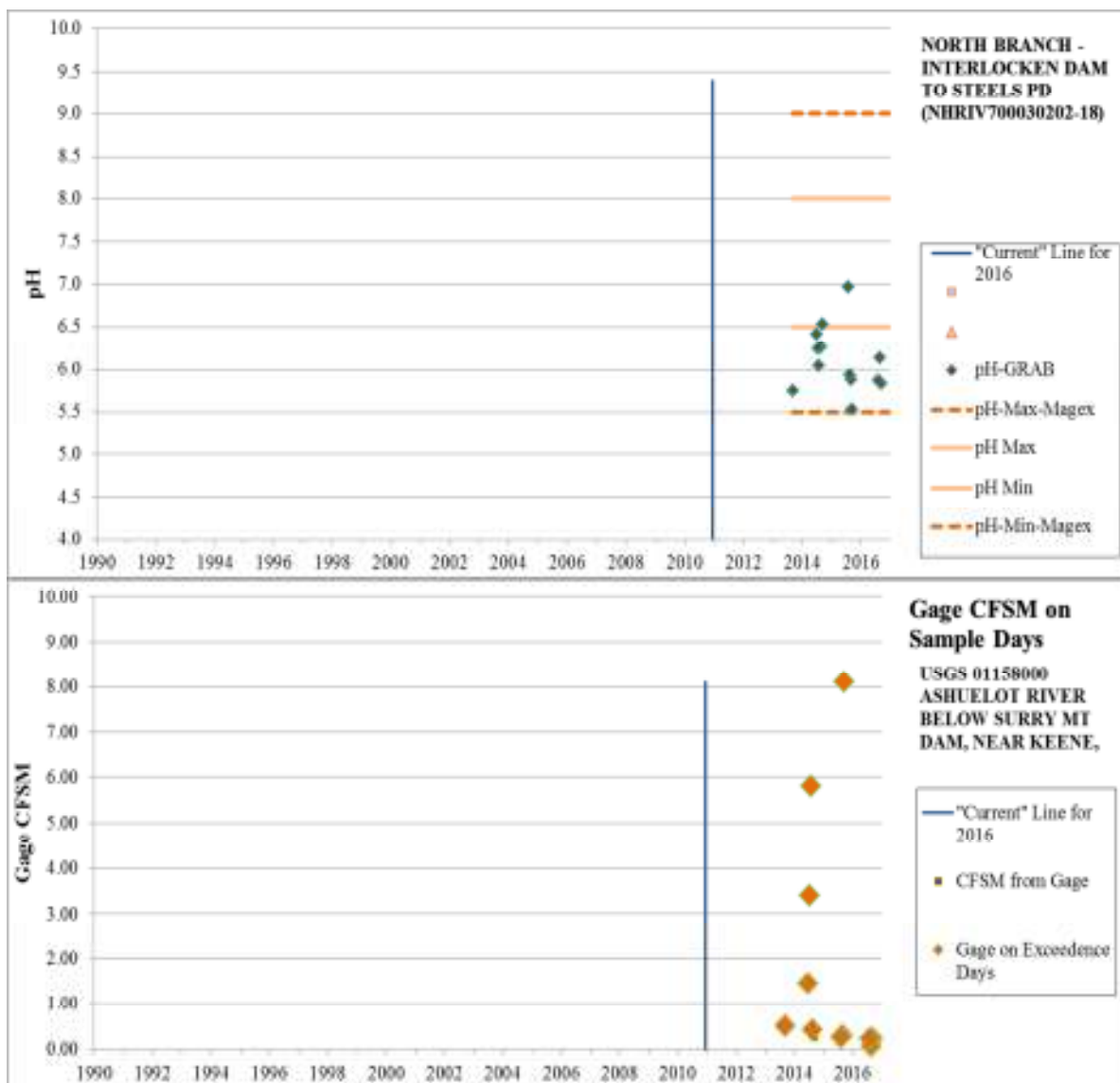pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
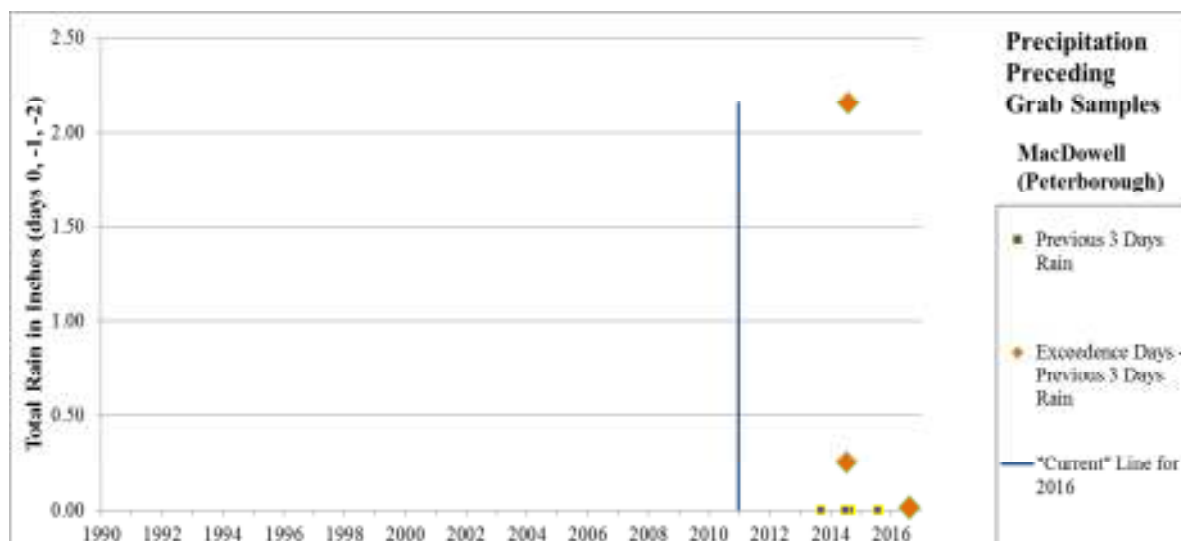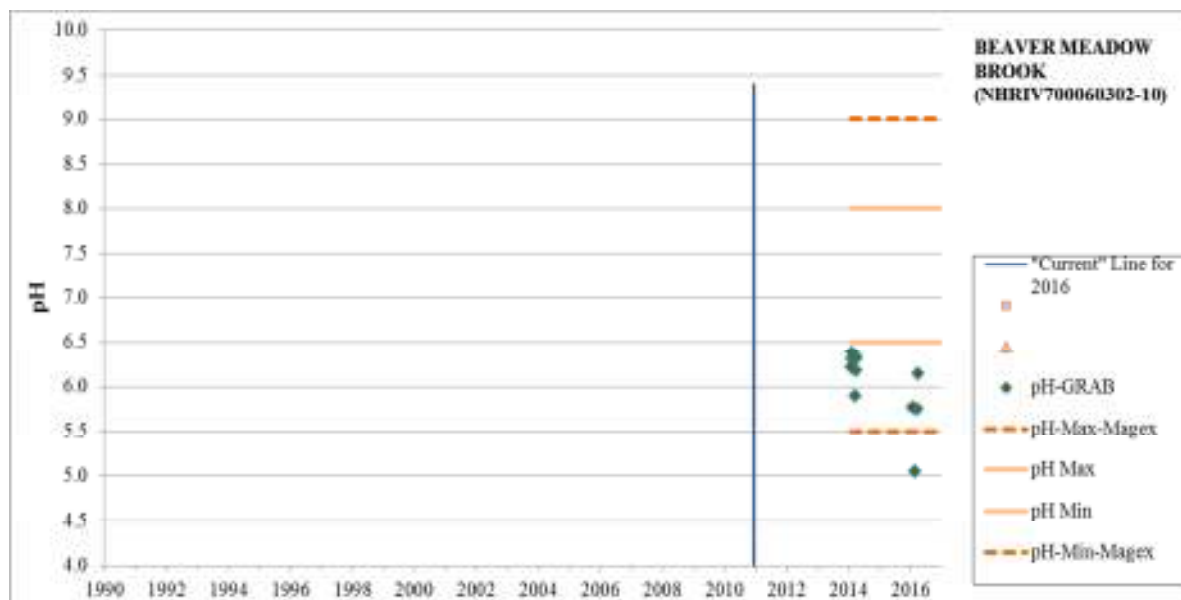
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

BEAVER MEADOW BROOK (NHRIV700060302-10)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BEAVER MEADOW BROOK	NHRIV700060302-10	pH	CONCORD	3-ND	5-P

2016: Grab sample data collected in 2014 and 2016 at station 01-BMW triggered the new impairment in the 2016 cycle. All 11 grab samples were non-supports (low pH between 5.05 – 6.38) collected in February through April. The non-supporting samples were collected at flows between 0.80 – 9.80 cfsm on the Soucook River gage (01089100) and during varying weather conditions (0.00 – 0.92" preceding three day precipitation).

Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
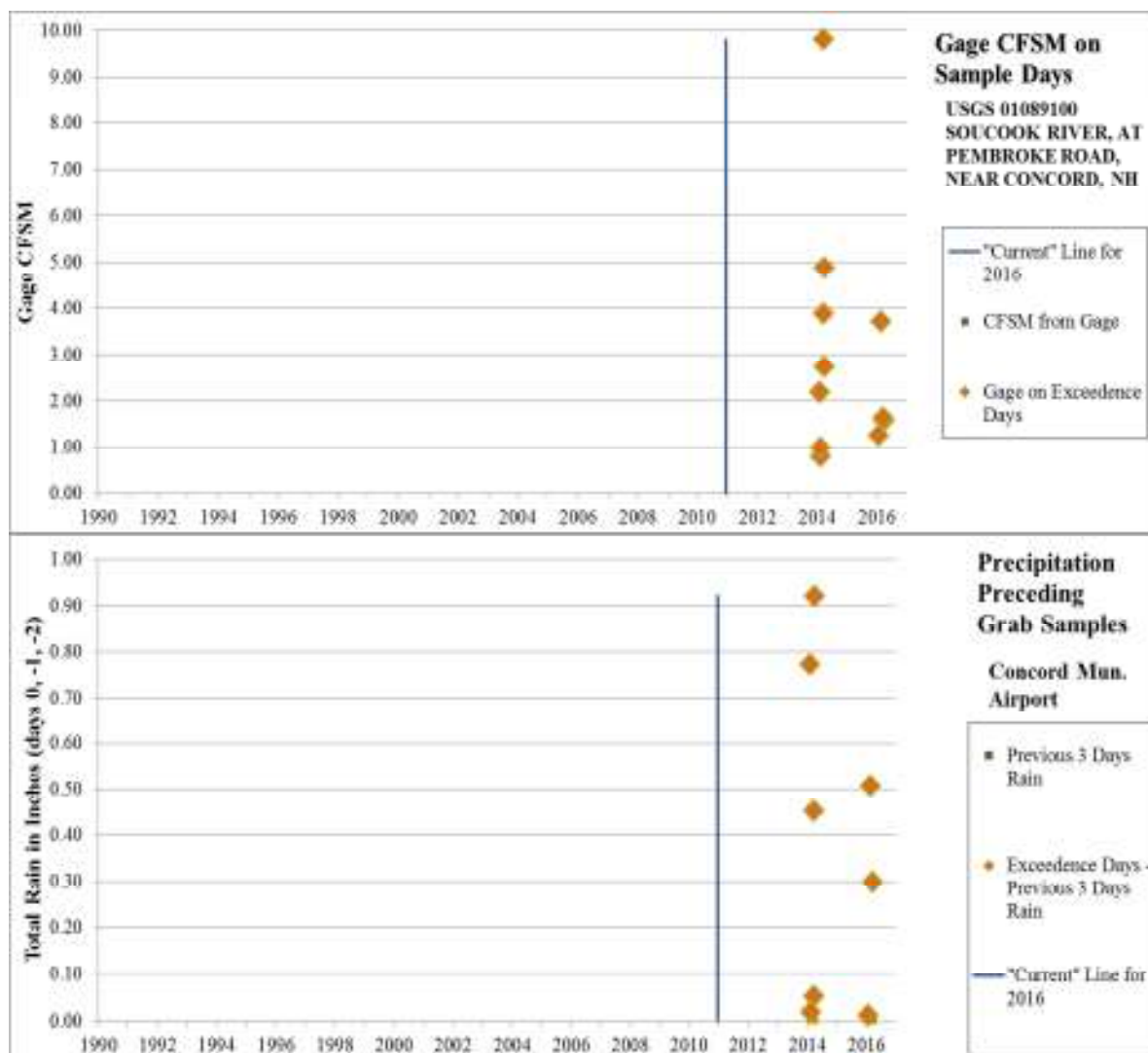
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

BOW BOG BROOK - HORSE BROOK (NHRIV700060302-20)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BOW BOG BROOK - HORSE BROOK	NHRIV700060302-20	pH	BOW	3-ND	5-P

2016: Grab sample data collected in 2014, 2015, and 2016 at stations 25G-BBB and 25T-BBB triggered the new impairment in the 2016 cycle. All 22 grab samples were non-supports (low pH between 4.92– 6.26) collected in February through October. The non-supporting samples were collected at flows between 0.12 – 4.73 cfsm on the Soucook River gage (01089100) and during varying weather conditions (0.00 – 2.58" preceding three day precipitation).

BOW BOG BROOK - HORSE BROOK (NHRIV700060302-20)

Gage CFSM on Sample Days

USGS 01089100 SOUCOOK RIVER, AT PEMBROKE ROAD, NEAR CONCORD, NH

Precipitation Preceding Grab Samples

Concord Mun. Airport

Notes:
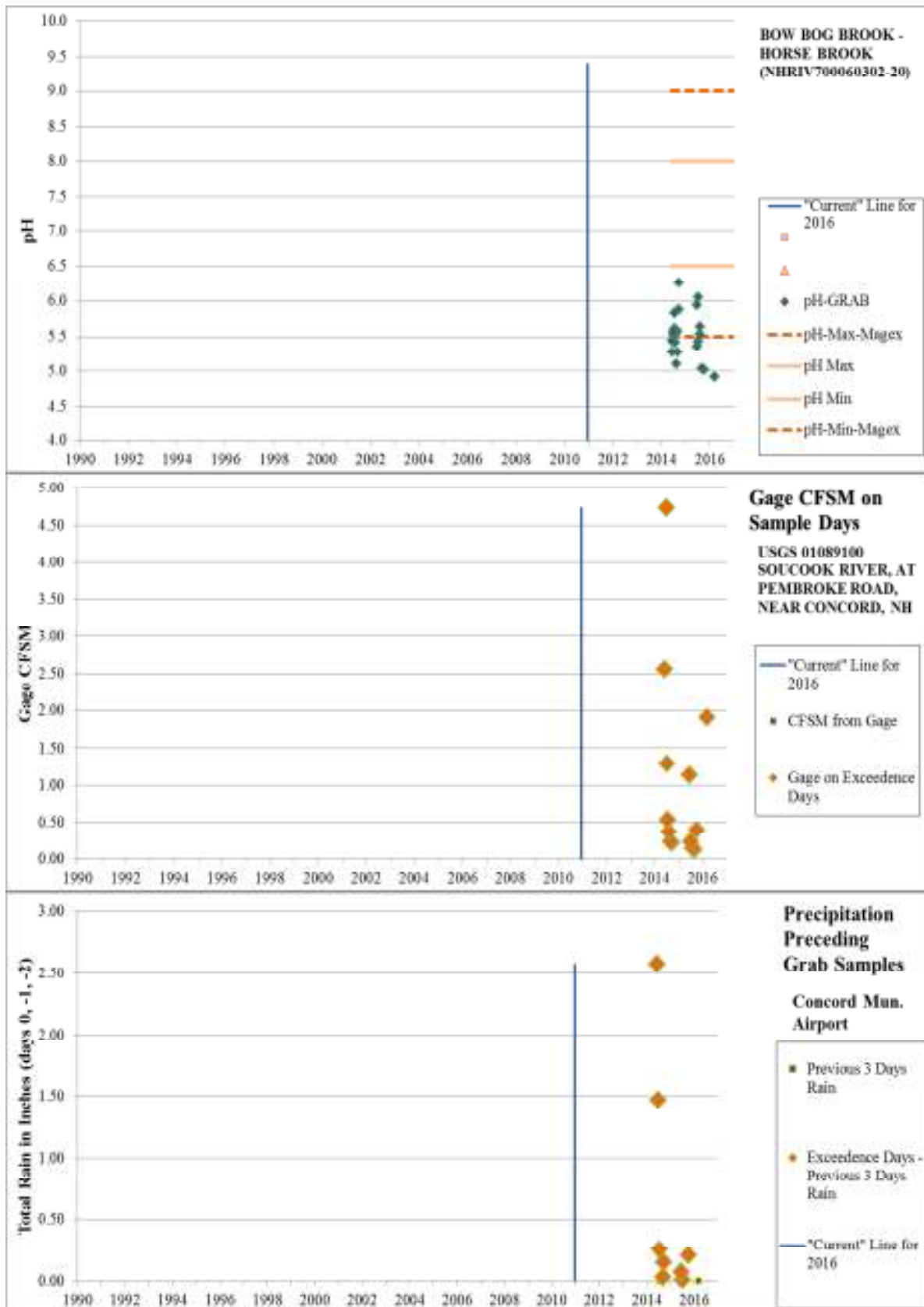   pH-GRAB = pH value from a grab sample.
   "Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

THE GULF (NHRIV700060502-06)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
THE GULF	NHRIV700060502-06	pH	NORTHWOOD	3-ND	5-P

2016: Grab sample data collected in 2014 and 2015 at stations 01-NWG and 03-NWG triggered the new impairment in the 2016 cycle. 24 of 27 (89%) grab samples were non-supports (low pH between 5.18– 6.39) collected in June through October. The non-supporting samples were collected at flows between 0.11 – 2.82 cfsm on the Suncook River gage (01089500) and during varying weather conditions (0.00 – 1.74" preceding three day precipitation).
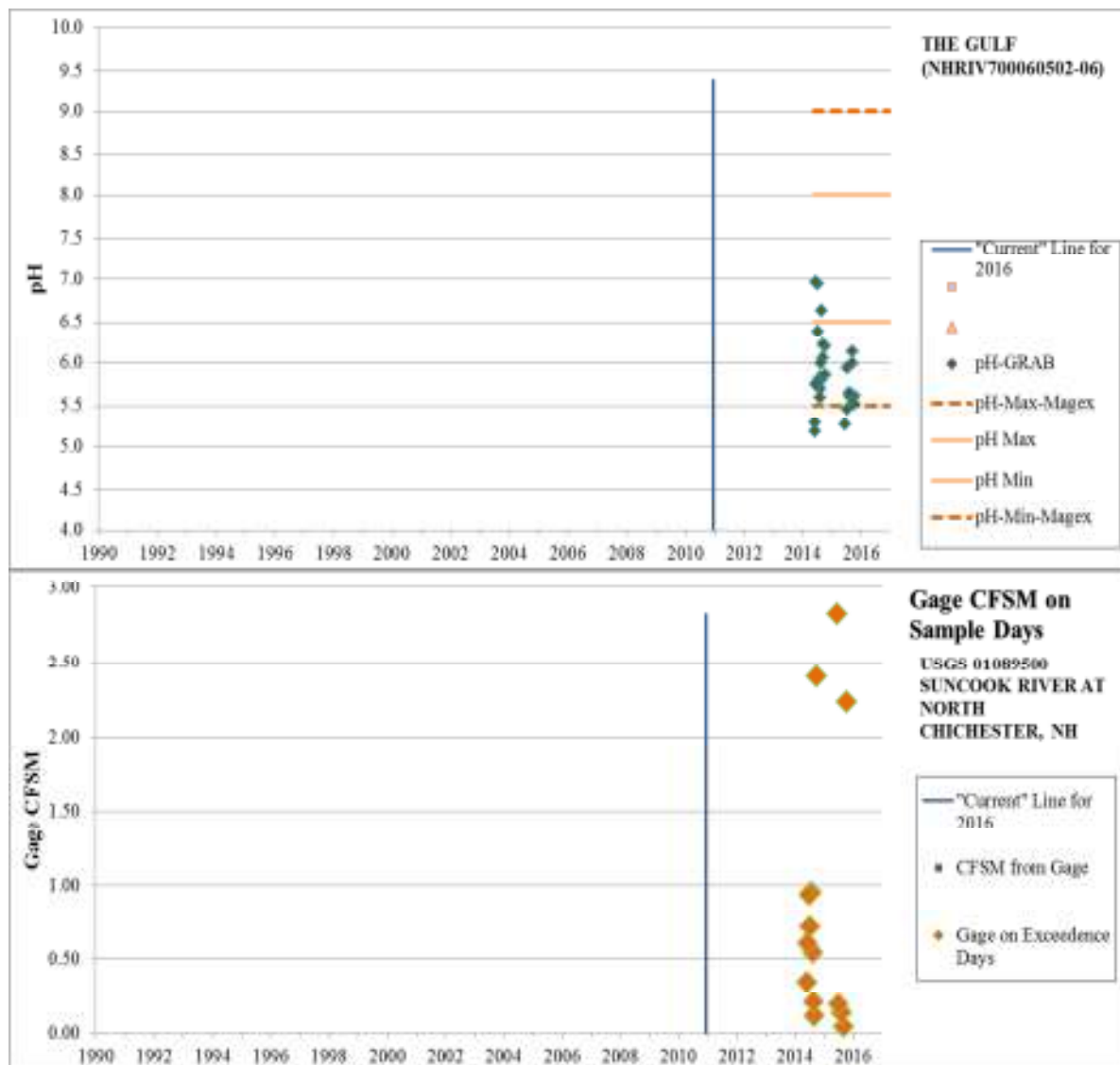
Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
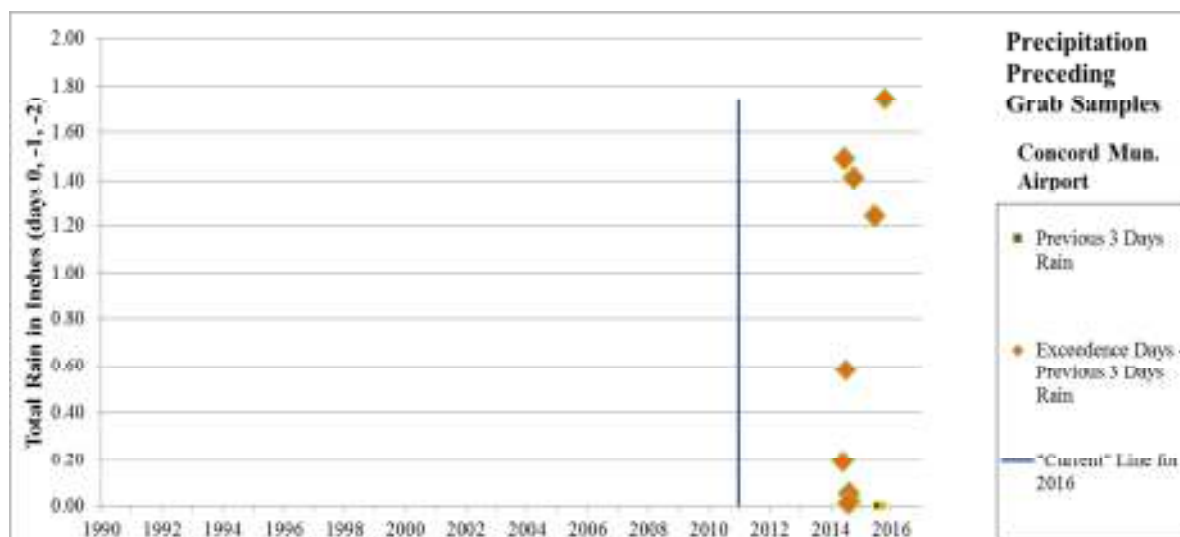
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

LITTLE BEAR BROOK (NHRIV700060503-12)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
LITTLE BEAR BROOK	NHRIV700060503-12	pH	ALLENSTOWN	3-ND	5-P

2016: Grab sample data collected in 2014 and 2015 at stations 12-LBB and 12G-LBB triggered the new impairment in the 2016 cycle. All 17 grab samples were non-supports (low pH between 5.11– 6.43) collected in June through October. The non-supporting samples were collected at flows between 0.21 – 1.76 cfsm on the Soucook River gage (01089100) and during varying weather conditions (0.00 – 1.41" preceding three day precipitation).

Notes:

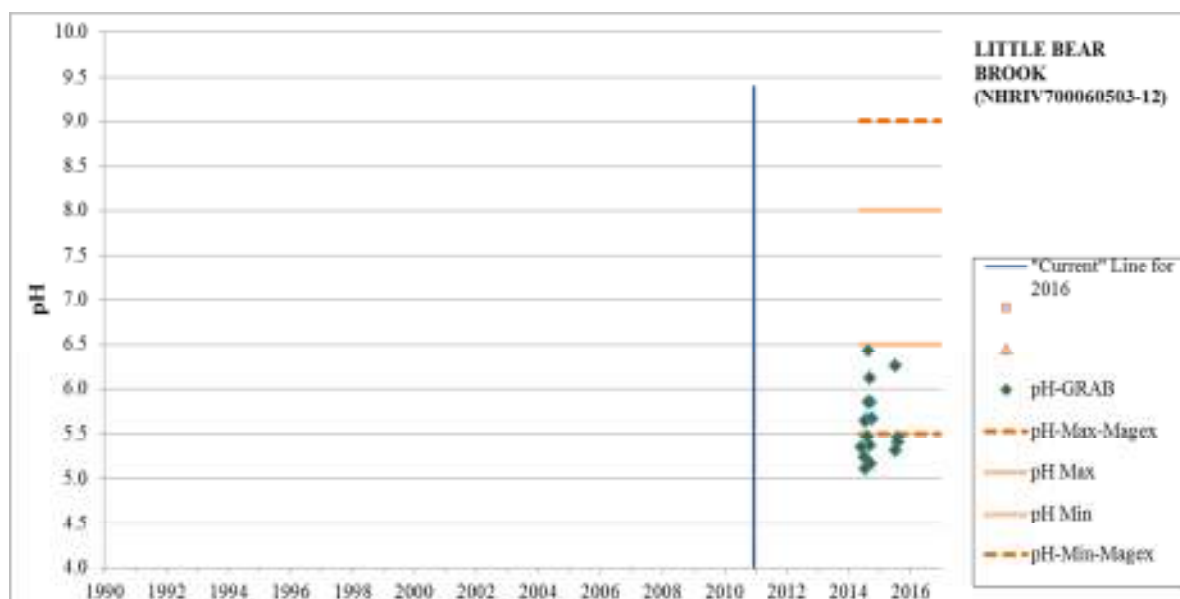pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

CATAMOUNT BROOK (NHRIV700060607-20)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
CATAMOUNT BROOK	NHRIV700060607-20	pH	GOFFSTOWN	3-PAS	5-M

2016: Grab sample data collected in 2014 and 2015 at stations 848-017 and 848-030 triggered the new impairment in the 2016 cycle. 7 of 19 (37%) grab samples were non-supports (low pH between 6.02– 6.47) collected in June through October. The non-supporting samples were collected at flows between 0.15 – 7.02 cfsm on the Piscataquog River gage (01091000) and during varying weather conditions (0.00 – 1.24" preceding three day precipitation). Stations 848-001, 848-009, 848-018, and 848-020 in full support.
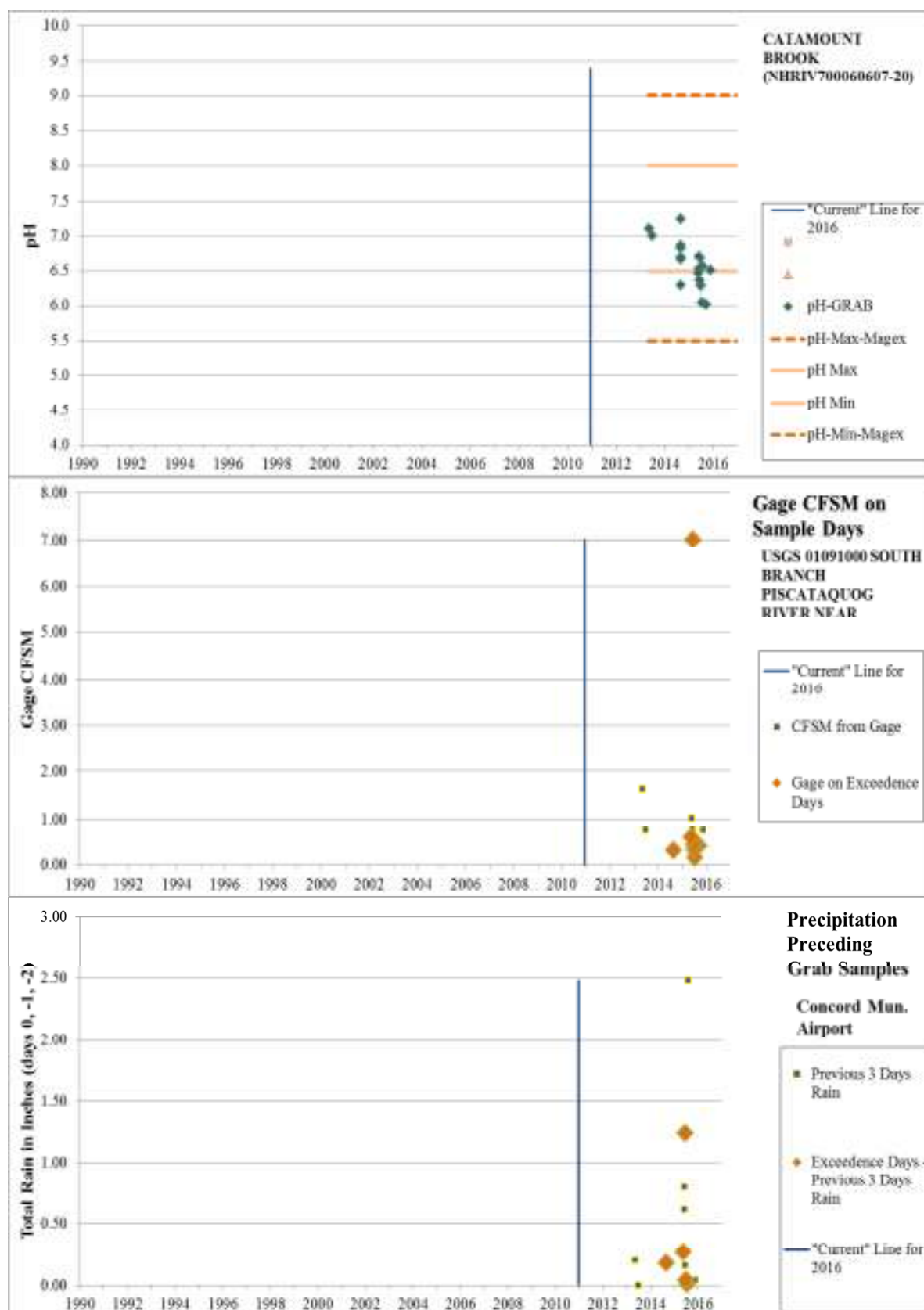
Notes:
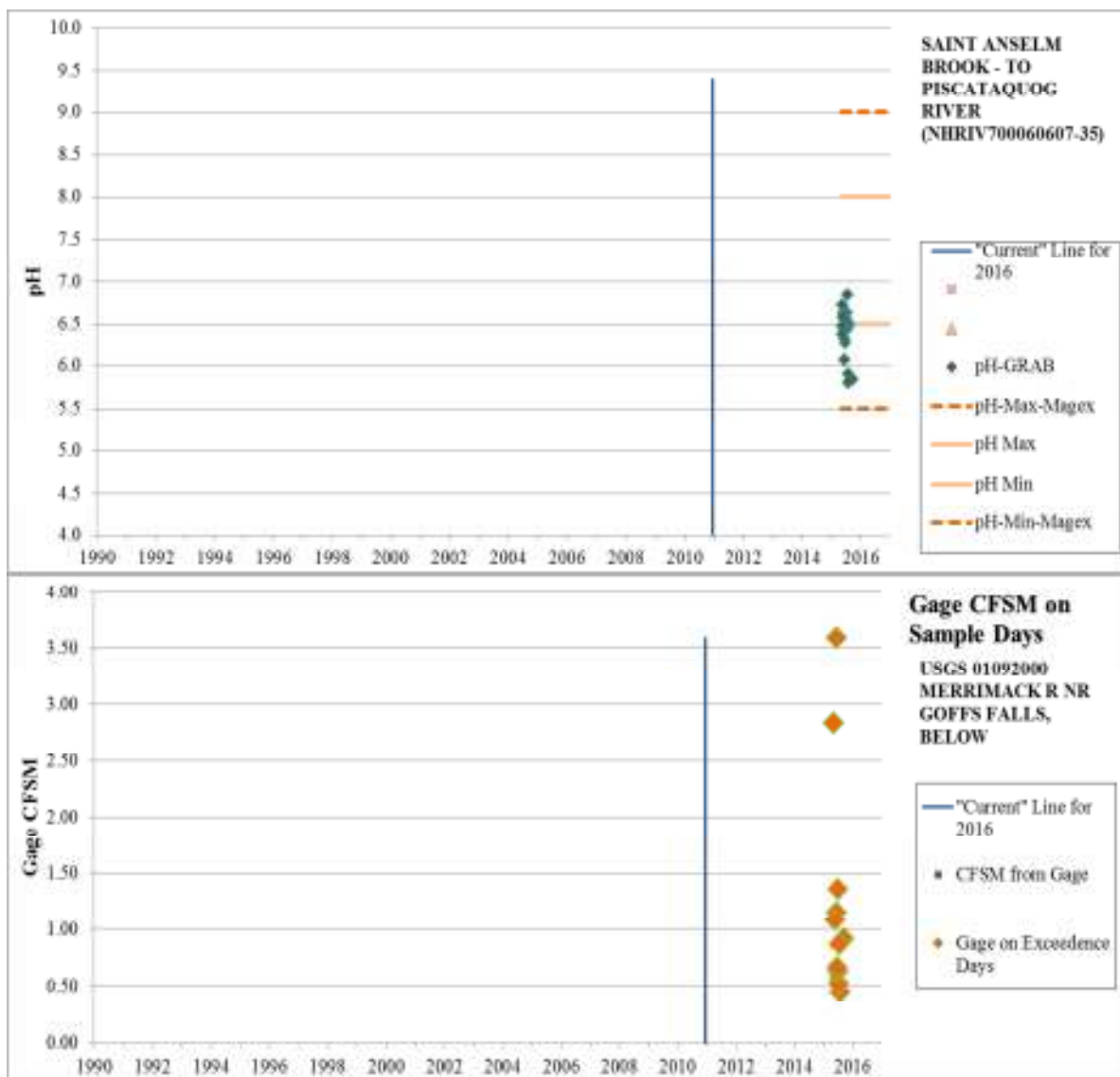   pH-GRAB = pH value from a grab sample.
   "Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

SAINT ANSELM BROOK - TO PISCATAQUOG RIVER (NHRIV700060607-35)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
SAINT ANSELM BROOK - TO PISCATAQUOG RIVER	NHRIV700060607-35	pH	MANCHESTER	3-ND	5-M

2016: Grab sample data collected in 2015 at stations 03-SAB and 05-SAB triggered the new impairment in the 2016 cycle. 14 of 24 (58%) grab samples were non-supports (low pH between 5.81– 6.48) collected in June through October. The non-supporting samples were collected at flows between 0.45 – 3.59 cfsm on the Merrimack River gage (01092000) and during varying weather conditions (0.00 – 3.23"preceding three day precipitation).

Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
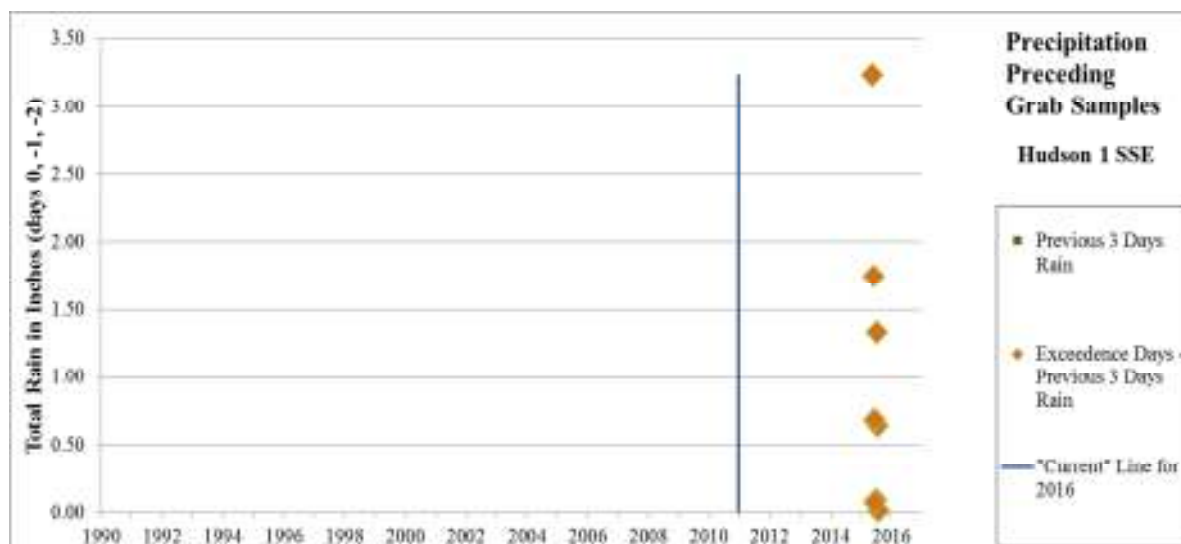
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

COHAS BROOK - UNNAMED BROOK (NHRIV700060703-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
COHAS BROOK - UNNAMED BROOK	NHRIV700060703-02	pH	AUBURN	3-PAS	5-P

2016: Grab sample data collected in 2014 and 2015 at stations 01-XCO and 02T-XCO triggered the new impairment in the 2016 cycle. 23 of 24 (96%) grab samples were non-supports (low pH between 5.10– 6.44) collected in June through October. The non-supporting samples were collected at flows between 0.36 – 3.78 cfsm on the Merrimack River gage (01092000) and during varying weather conditions (0.00 – 2.44" preceding three day precipitation).

Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
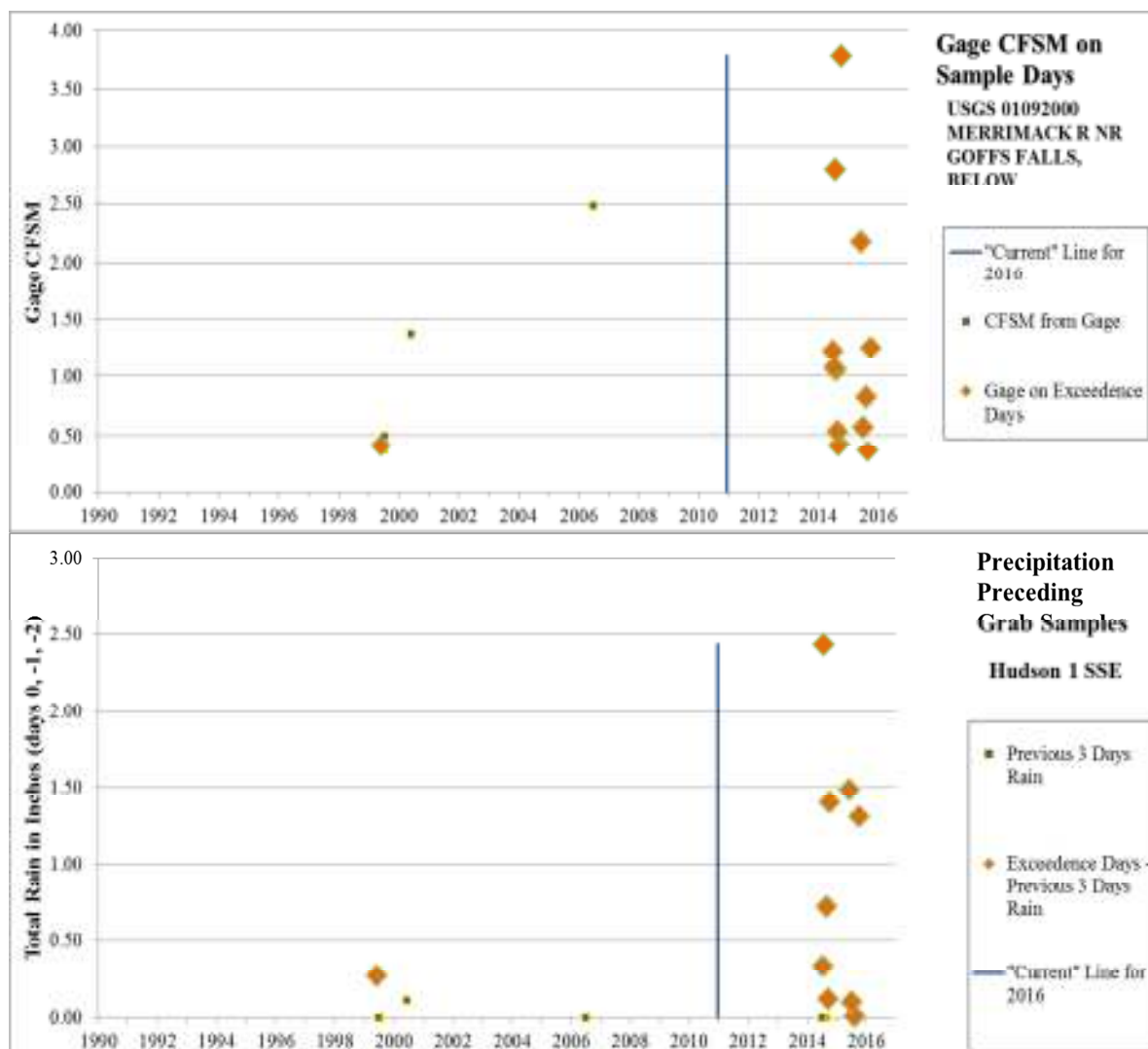
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

UNNAMED BROOKS - TO KEMP BROOK (NHRIV802020202-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
UNNAMED BROOKS - TO KEMP BROOK	NHRIV802020202-01	pH	FITZWILLIAM	3-ND	5-M

2016: Datalogger data collected in 2015 at station 02-XKB triggered the new impairment in the 2016 cycle. 18 of 26 (69%) of the daily minimum and maximum logger values were non-supports (low pH of 5.73 - 6.45) collected in July. The non-supporting samples were collected at flows between 0.35 – 1.00 cfsm on the Ashuelot River gage (01160350) and during varying weather conditions (0.00 – 0.84"preceding three day precipitation).

Notes:

pH-24HR_MIN = pH minimum value from a datalogger deployment.

pH-24HR_MAX = pH maximum value from a datalogger deployment.
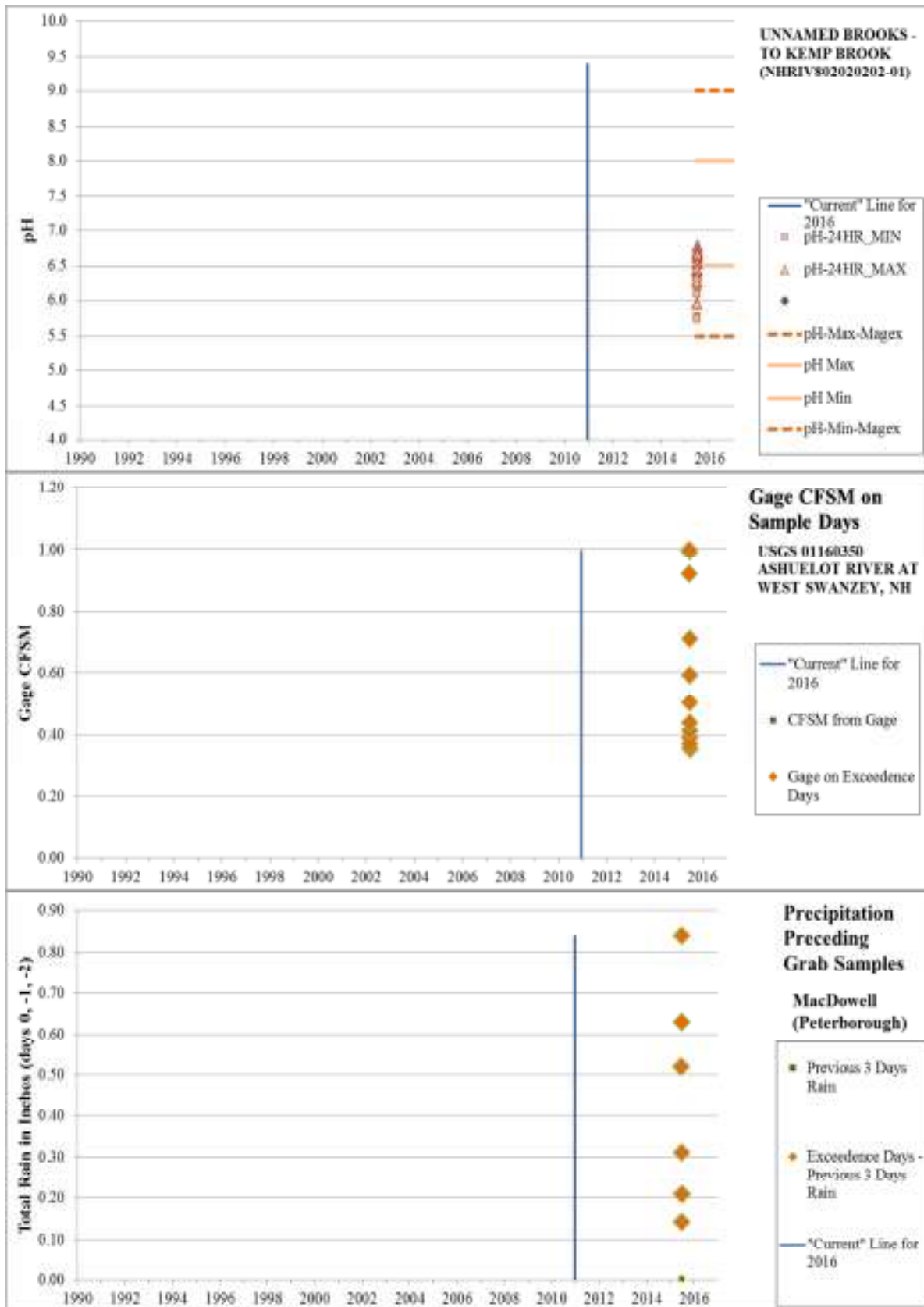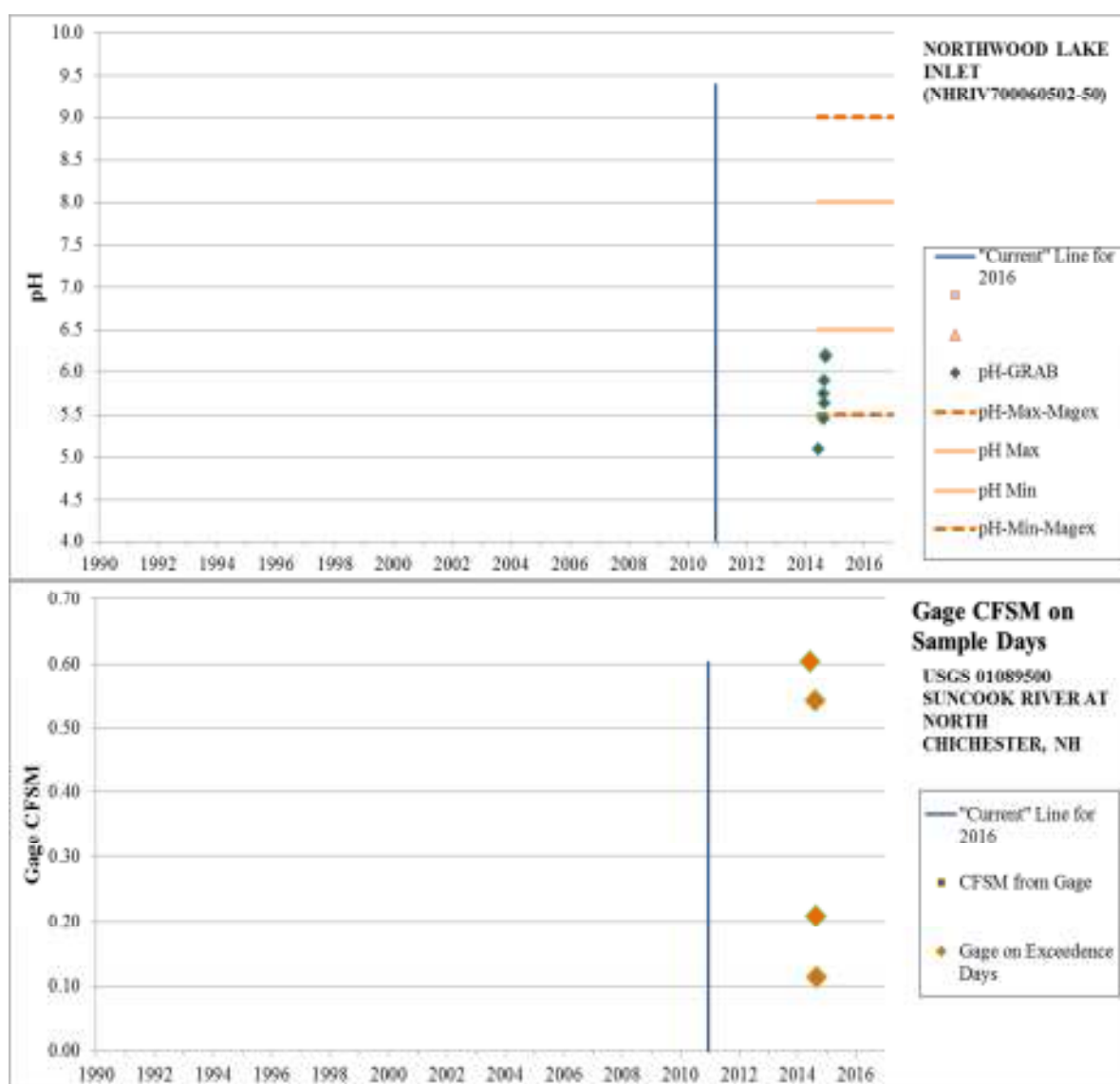
pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"Current" Line for 2014 – Per the methodology outlined in the CALM, all data from this referenced data is considered 'current' unless. Available older data is provided for context. See the 2016 CALM for addition details.

NORTHWOOD LAKE INLET (NHRIV700060502-50)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
NORTHWOOD LAKE INLET	NHRIV700060502-50	pH	Northwood	3-ND	5-M

2016: Grab sample data collected in 2014 at stations 02-NWI and 03-NWI triggered new impairment for the 2016 cycle. All 7 grab samples were non-supports (low pH between 5.09 – 6.20) collected in July and September. The non-supporting samples were collected at flows between 0.11 – 0.60 cfsm on the Suncook River gage (01089500) and during varying weather conditions (0.00-1.49" preceding three day precipitation).

Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
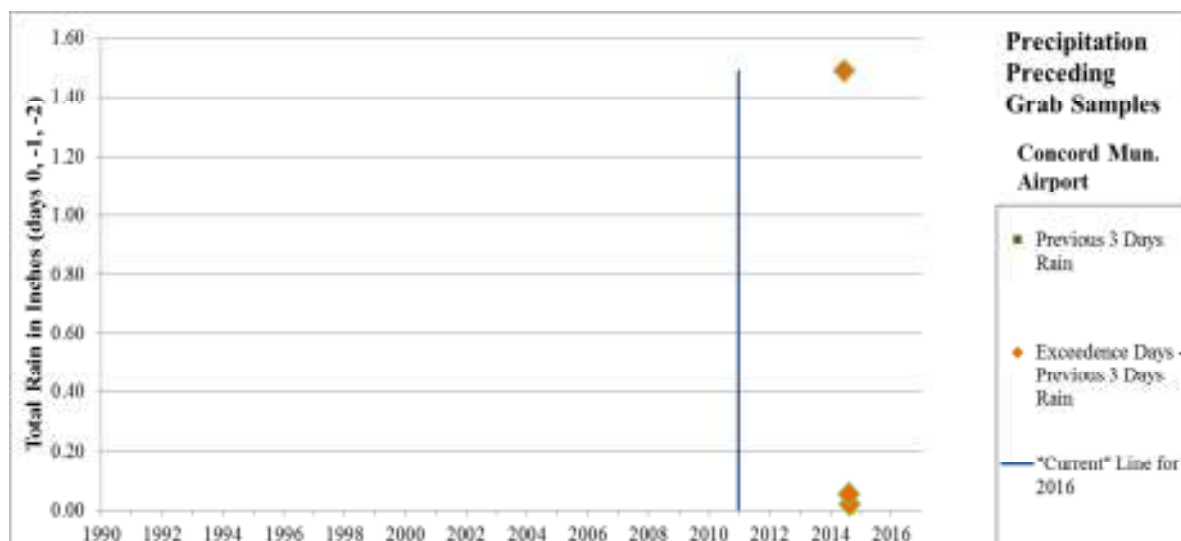
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

HAYWARD BROOK (NHRIV700060302-08)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
HAYWARD BROOK	NHRIV700060302-08	pH	CONCORD	3-ND	5-M

2016: Grab sample data collected in 2016 at station 02-HYW triggered category 5-M in the 2016 cycle. Five of 6 (83%) grab samples were non-supports (low pH between 4.84 and 6.33) collected in February through April. The non-supporting samples were collected at flows between 1.38 – 3.93 cfsm on the Soucook River gage (01089100) and during varying weather conditions (0.00 – 0.87" preceding three day precipitation).
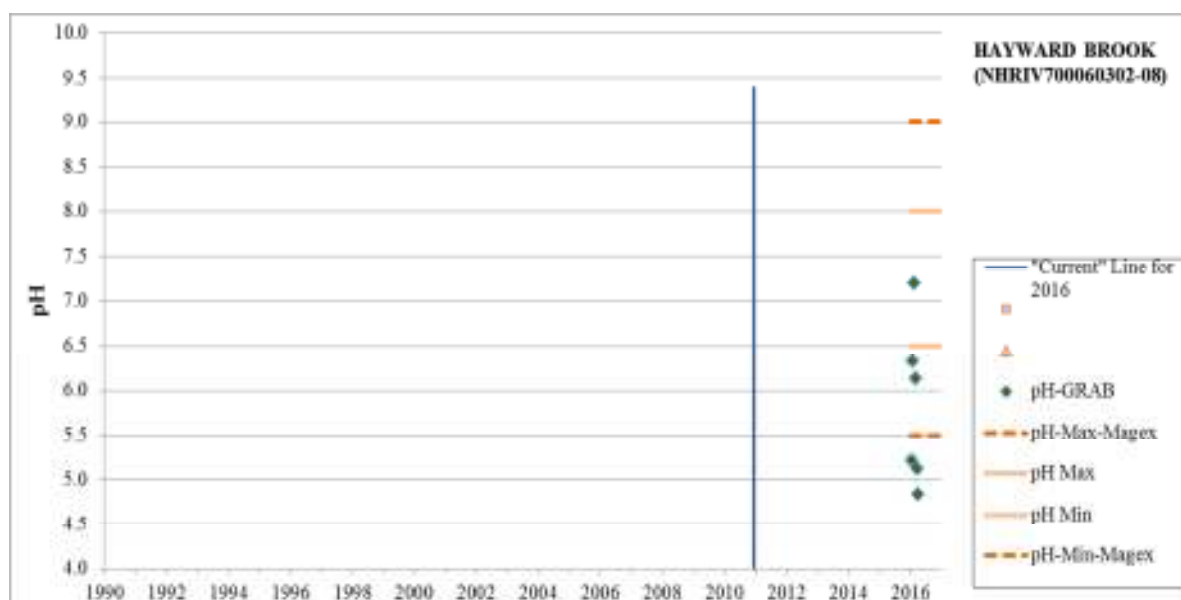
Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
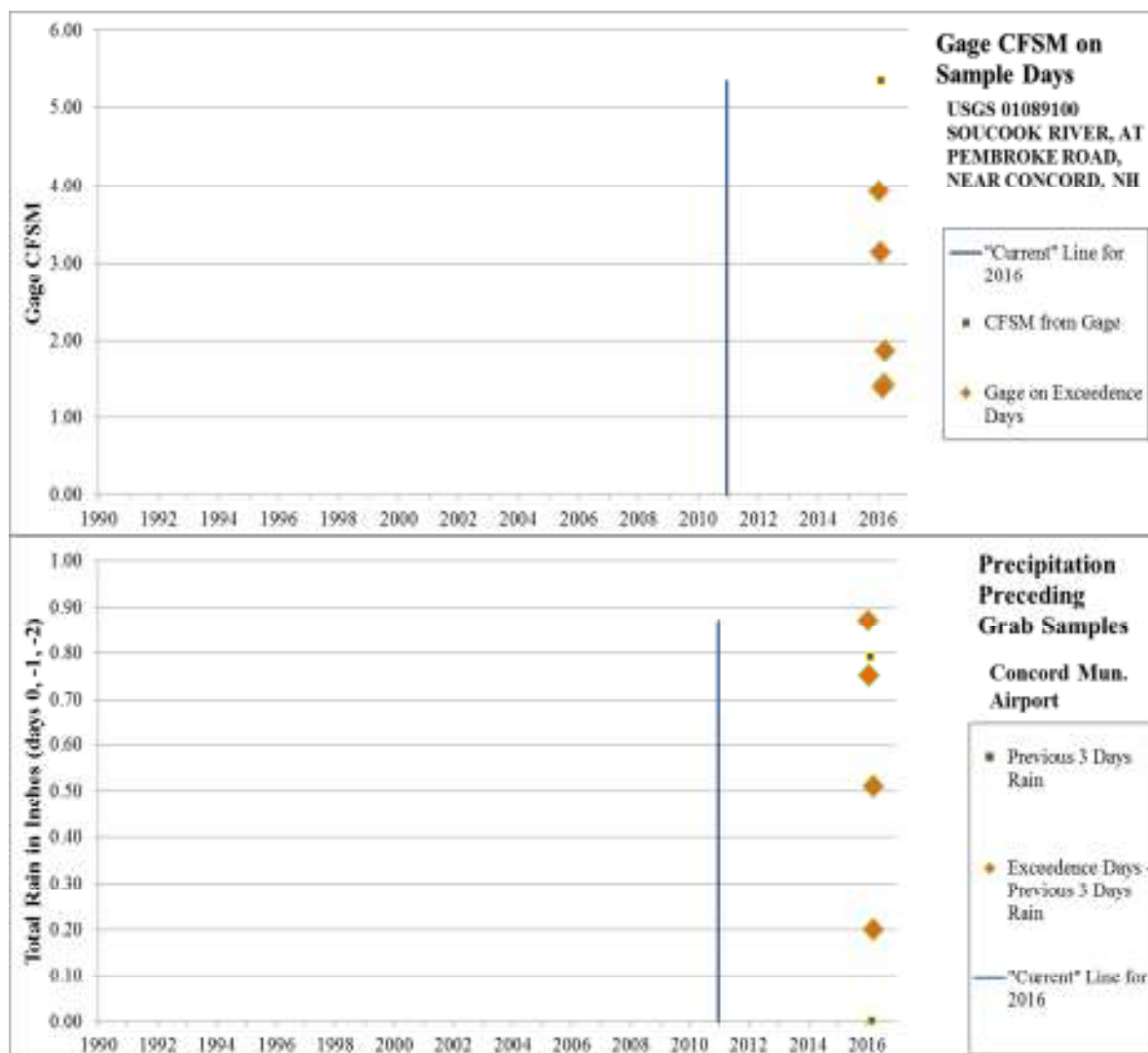
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

UNNAMED BROOK - BETWEEN LITTLE BABOOSIC LAKE AND WASHER COVE BABOOSIC LAKE (NHRIV700060905-09)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
UNNAMED BROOK - BETWEEN LITTLE BABOOSIC LAKE AND WASHER COVE BABOOSIC LAKE	NHRIV700060905-09	pH	AMHERST	3-ND	5-P

2016: Grab sample data collected in 2015 and 2016 at station BABAMHBB triggered review in the 2016 cycle. All 6 grab samples were non-supports (low pH between 5.24– 5.94) collected in June through August. The non-supporting samples were collected at flows between 0.15 – 0.76 cfsm on the Piscataquog River gage (01091000). The historic non-support data coupled with the new non-support data from this cycle support the new category 5-P.
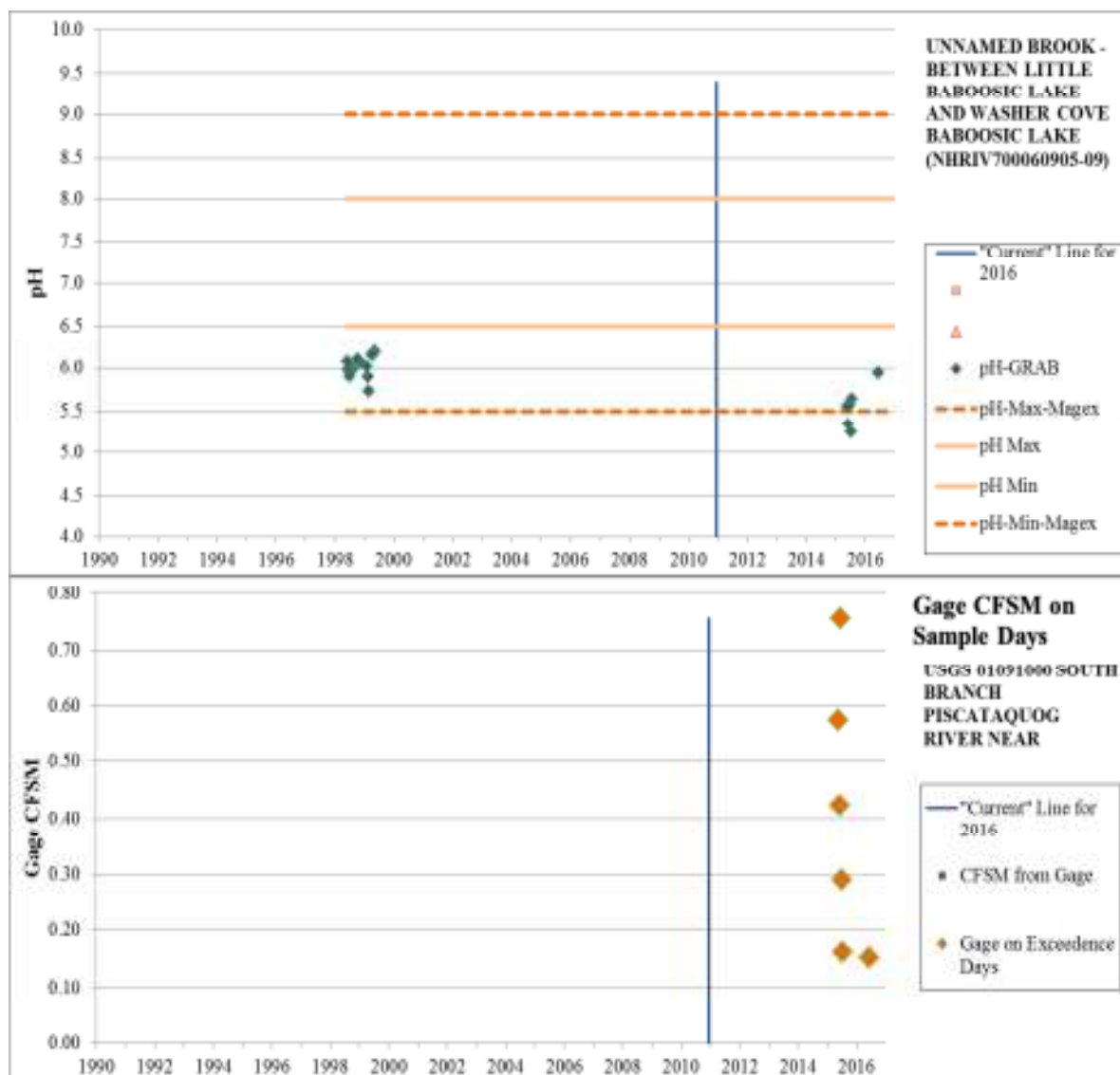
Notes:
pH-GRAB = pH value from a grab sample.
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

ELBOW POND (NHLAK700010203-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
ELBOW POND	NHLAK700010203-01	pH	Woodstock	3-ND	5-M

2016: Grab samples from station ELBWOOD, indicate impairment for the 2016 cycle. 2 of 2 (100%) of grab samples were below pH 6.5 (pH values between 6.21 - 5.73). Samples were collected over different months and years under normal weather conditions.

Notes:
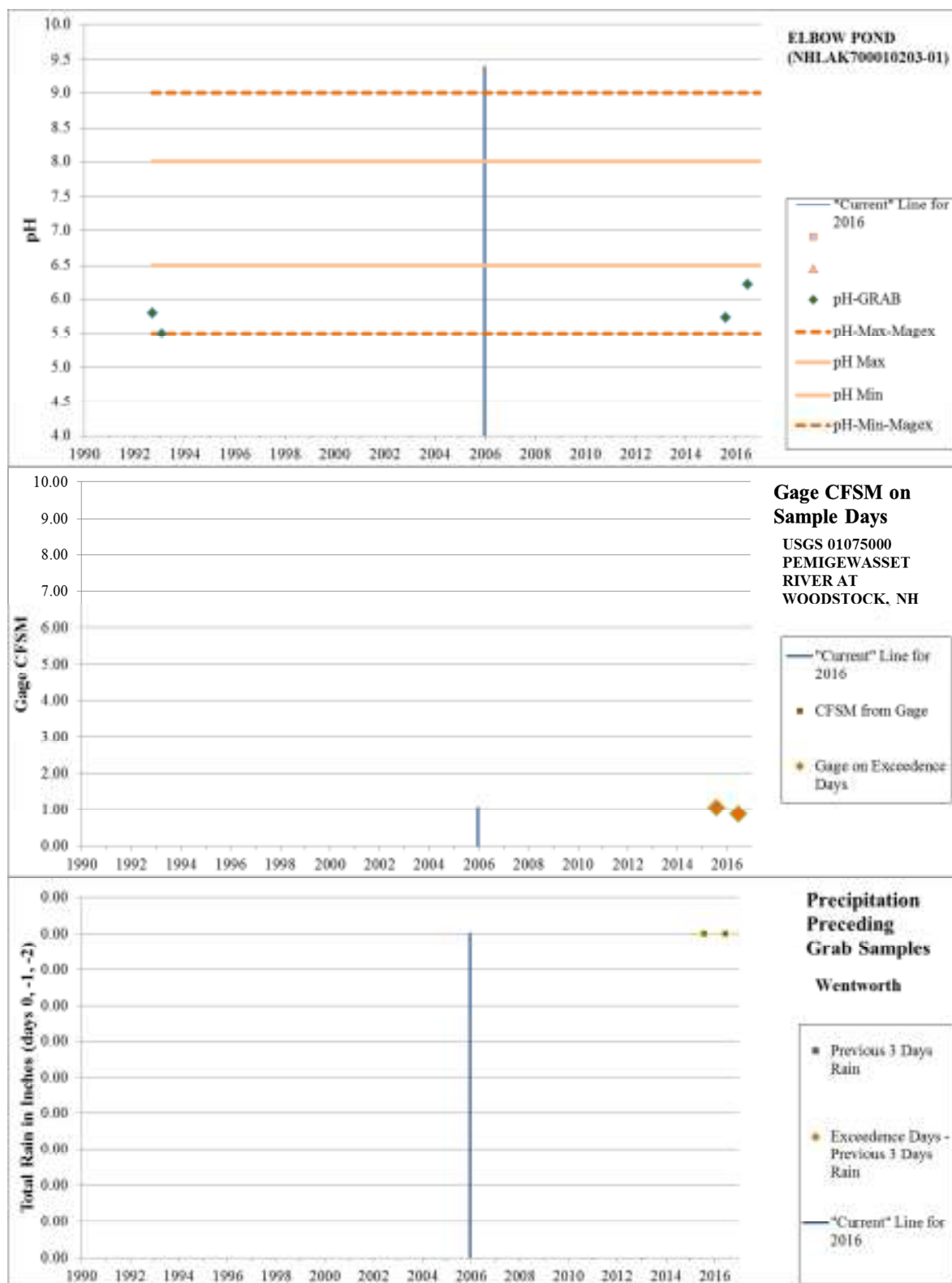   pH-GRAB = pH value from a grab sample.
   "Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
   "Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional

details.

BAILEY POND (NHLAK700060606-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BAILEY POND	NHLAK700060606-01	pH	New Boston	3-ND	5-M

2016: Grab samples from station BAINWBD caused the initial impairment of the 2016 cycle. Three of 3 (100%) were below pH 6.4 (Values ranged from 6.44 - 5.77). Samples were collected during June, July, and August and from various weather conditions (0.00 - 0.98" rain in a 3 day period).

Notes:
   pH-GRAB = pH value from a grab sample.
   "Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
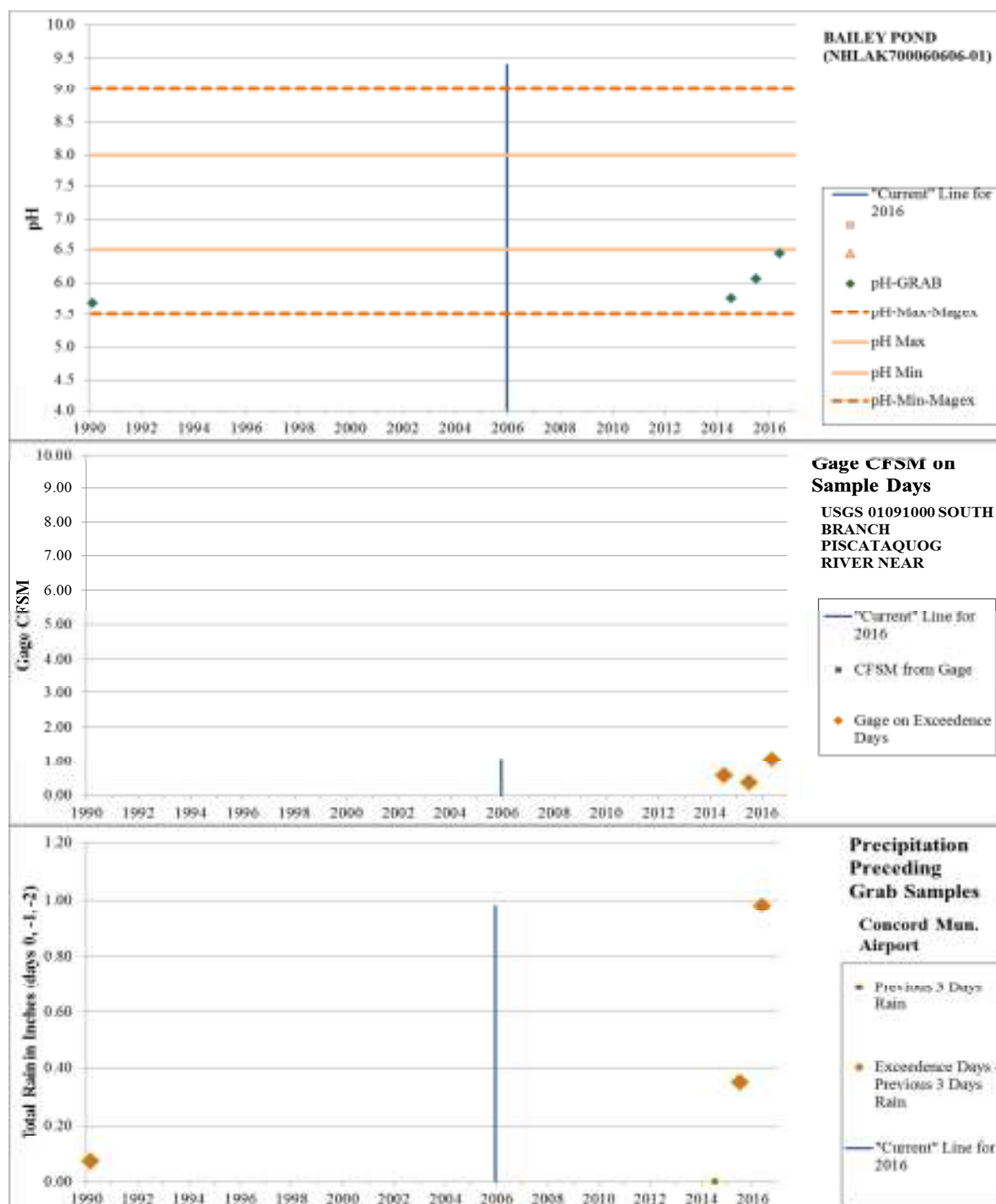   "Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

GLEN LAKE (NHLAK700060607-01-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
GLEN LAKE	NHLAK700060607-01-01	pH	Someplace or other	3-PNS	5-M

2016: Grab samples from station GLEGOFD indicated impairment for the 2016 cycle. Seven of 9 (78%) were below pH 6.5 (values ranged from 6.48 - 5.96). Sampled were collected June, July, August and under various weather conditions (0.01 - 1.69" rain in a 3 day period).

Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
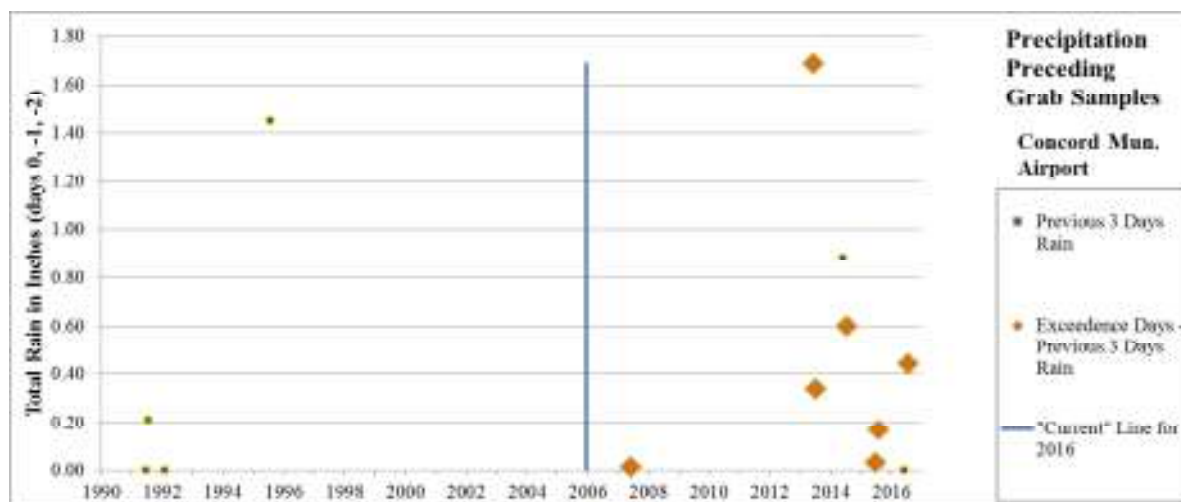
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

HEDGEHOG POND (NHLAK700061102-13-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
HEDGEHOG POND	NHLAK700061102-13-02	pH	Salem	3-PNS	5-M

2016: Grab samples from station 199609008SW01, indicated impairment for the 2016 cycle. Five of 8 (63%) were below pH 6.5 (values ranged from 6.30 to 4.34). Collection was done during April, May, July, and November and under various weather conditions, (0.02 - 0.58" rain in 3 day period).

Gage CFSM on Sample Days
USGS 010965852 BEAVER BROOK AT NORTH PELHAM, NH

Precipitation Preceding Grab Samples
Hudson 1 SSE

Notes:

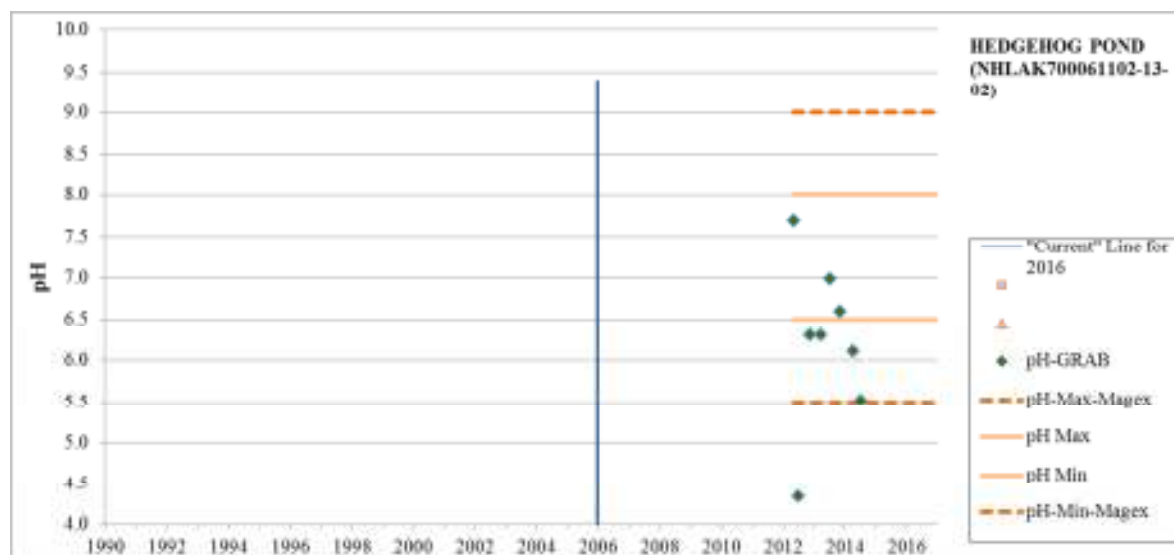pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
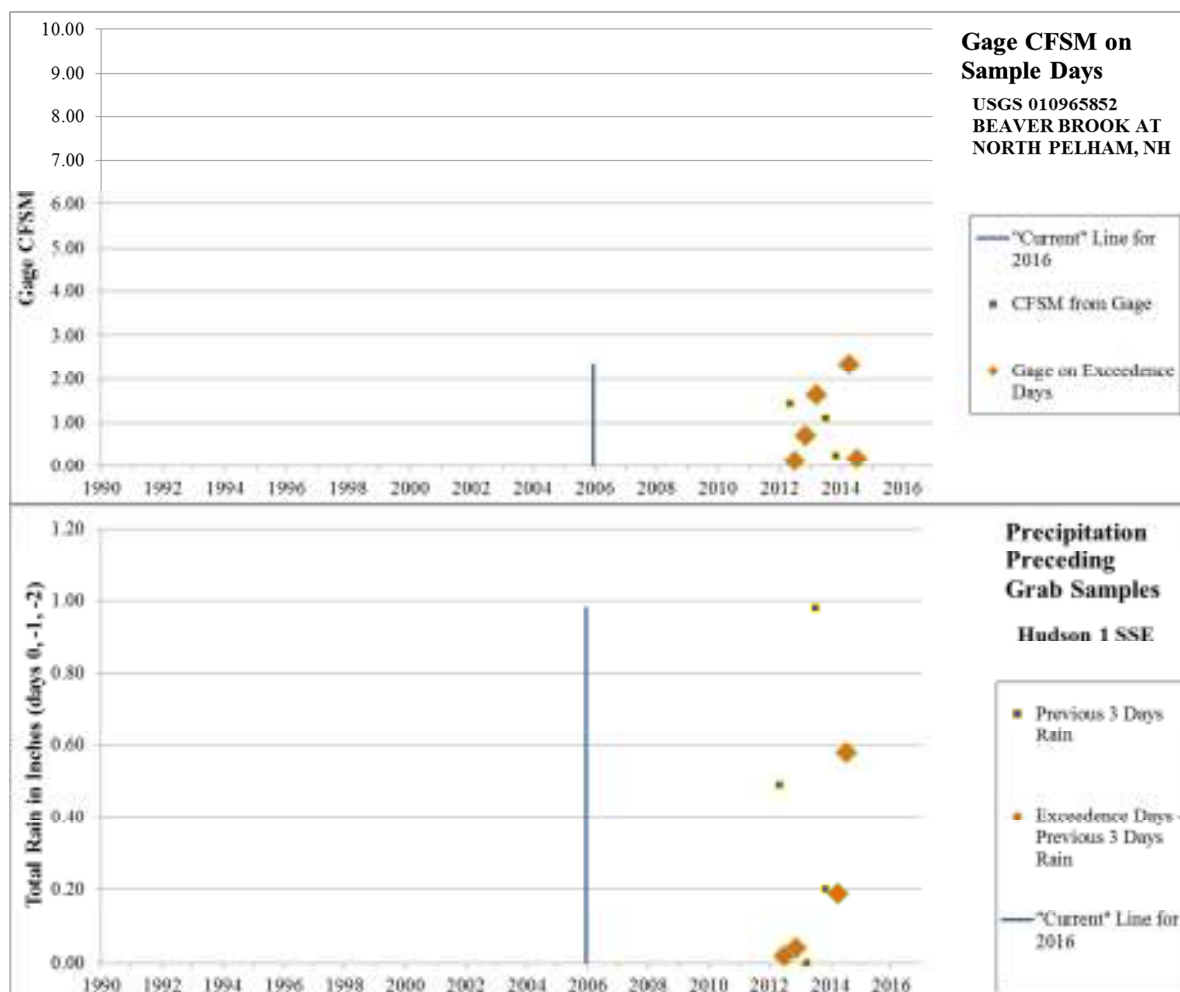
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

COBBETTS POND (NHLAK700061204-01-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
COBBETTS POND	NHLAK700061204-01-01	pH	Windham	2-M	5-M

2016: Grab samples from stations, COBWINND, COBWINSD, COBWINMESS indicated impairment for the 2016 cycle. Eight of 55 (15%) of samples were below pH 6.5, (values ranged from 6.49 - 6.21). Samples were taken during May, June, July, and August in varying weather conditions, (0.02 -1.13" rain in a 3 day period).

COBBETTS POND (NHLAK700061204-01-01)

Gage CFSM on Sample Days

USGS 010965852 BEAVER BROOK AT NORTH PELHAM, NH

Precipitation Preceding Grab Samples

Hudson 1 SSE
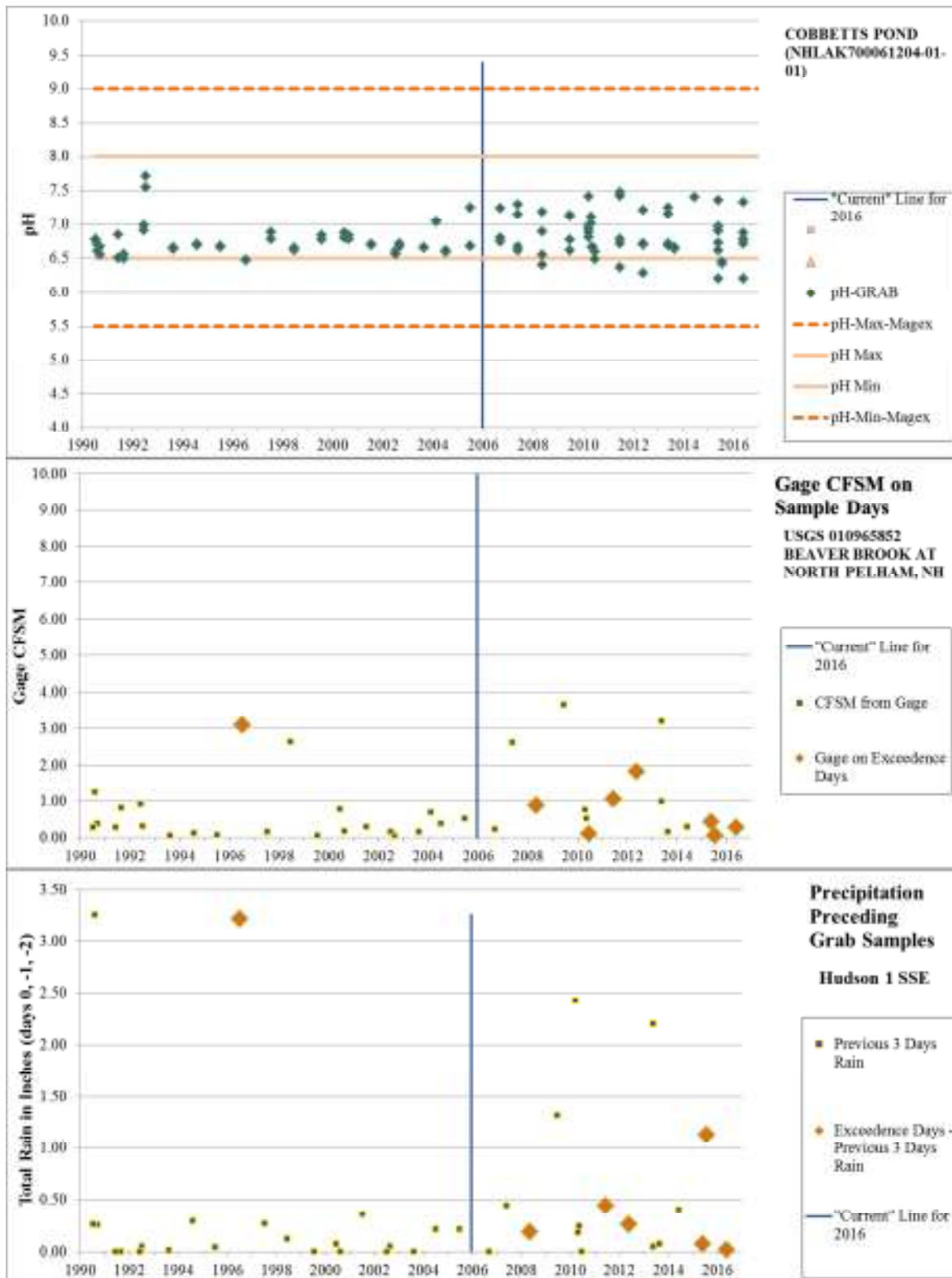
Notes:
   pH-GRAB = pH value from a grab sample.
   "Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
   "Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

MOUNTAIN POND (NHLAK802020103-07)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
MOUNTAIN POND	NHLAK802020103-07	pH	New Ipswich	3-PNS	5-M

2016: Grab samples from station MOUNWID indicate impairment for the 2016 cycle. Three of 3 samples 100% were below pH 6.45 (values 5.86-6.09). Samples were taken in June through September under varying weather conditions, (0.00 -3.10"preceding three day precipitation) during variable flow conditions (067 cfs - 4.13 cfs) USGS 01082000 CONTOOCOOK RIVER AT PETERBOROUGH, NH.

Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
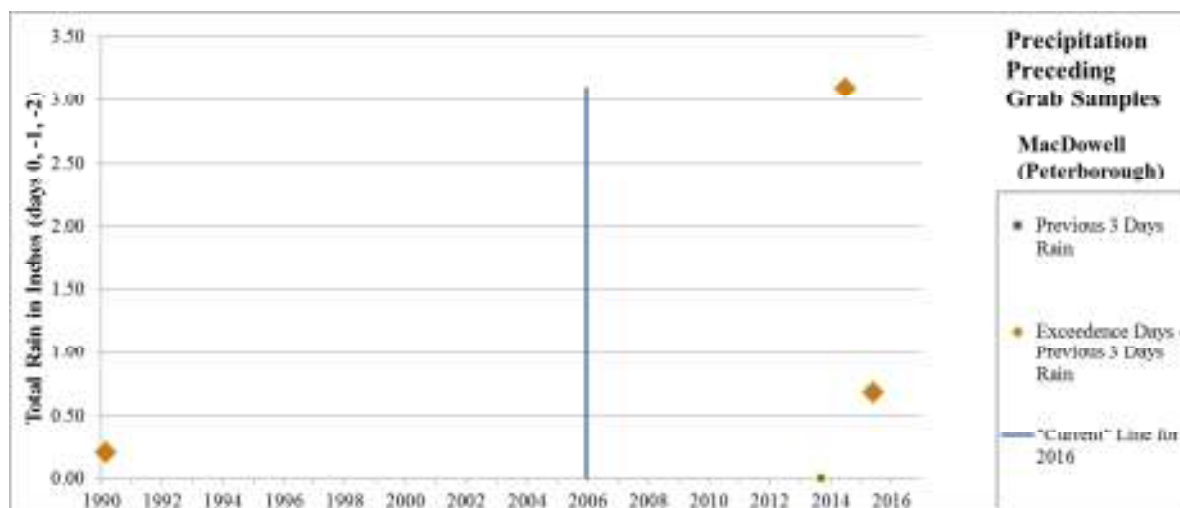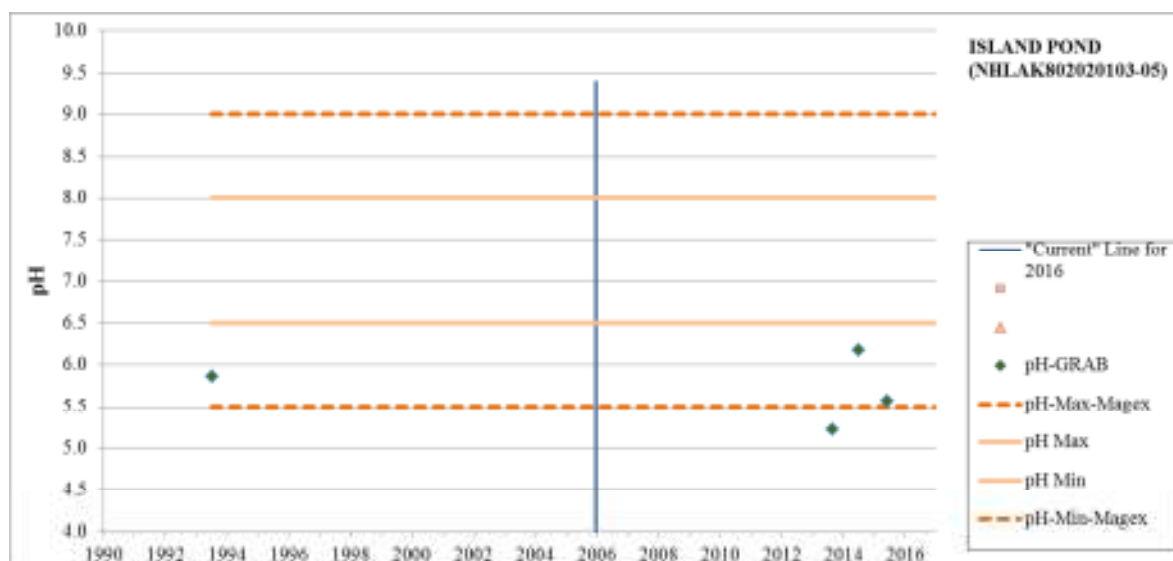
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

ISLAND POND (NHLAK802020103-05)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
ISLAND POND	NHLAK802020103-05	pH	New Ipswich	3-PNS	5-M

2016: Grab sample data collected in 2013through 2015 at station ISLNWID triggered the new impairment in the 2016 cycle. All three grab samples were non-supports collected in June through September. Two of the non-supports were just below the pH minimum magex of 5.5 with readings of 5.22. Collected at flows of 0.29 and 4.13 cfsm on the USGS 01082000 CONTOOCOOK RIVER AT PETERBOROUGH (NH and during varying weather conditions (0.29 and 4.13"preceding three day precipitation). Due to 5.7 being so close to the pH minimum magex threshold of 5.5, they will not count as magex non-supports. The river has been categorized as 5-M for the 2016 cycle.

Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
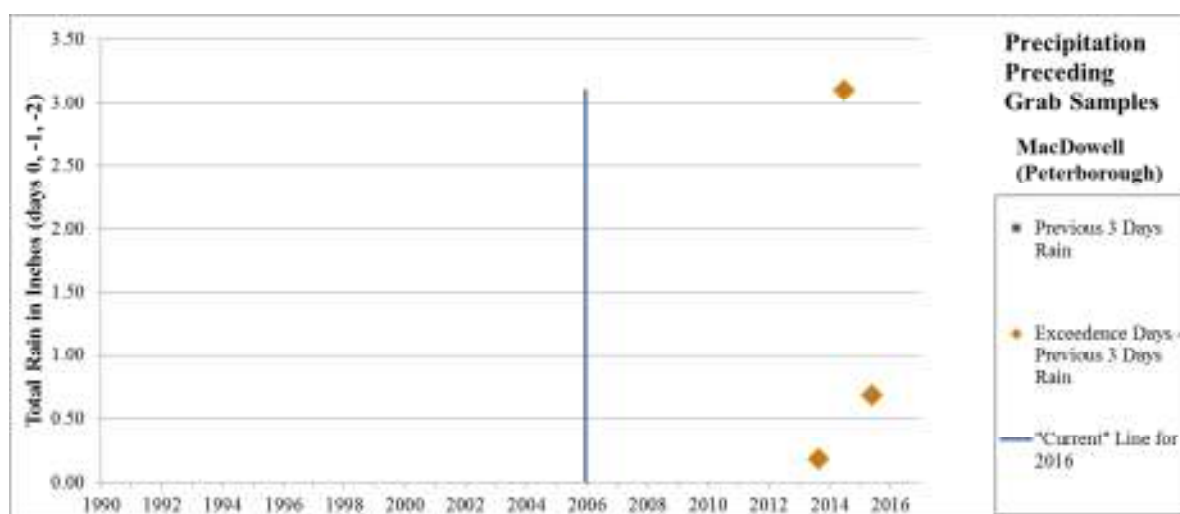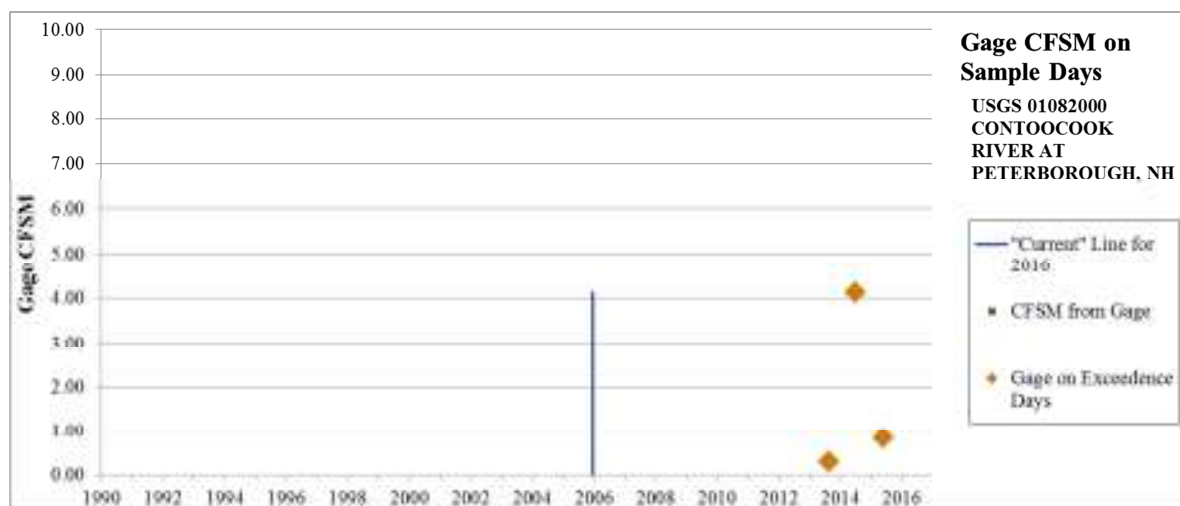
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

LOVELL LAKE (NHLAK600030401-01-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
LOVELL LAKE	NHLAK600030401-01-01	pH	Wakefield	3-PNS	5-M

2016: Grab sample data collected from stations, LOV01NL, and LOV02SL indicated impairment for the 2016 cycle. 14 of 49 (27%) grab samples were below 6.5 (low pH between 6.15– 6.48). Collected in June through September during varying weather conditions (0.00 – 0.39" 3 day total).

Notes:
  pH-GRAB = pH value from a grab sample.
  "Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
  "Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

MILTON POND (NHLAK600030404-01-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
MILTON POND	NHLAK600030404-01-01	pH	Milton	3-ND	5-M

2016 Grab sample data collected at stations DEP02ML, and MILMILD, indicate impairment for the 2016 cycle. Three of 3 (100%) of grab samples were below 6.5 (low pH between 6.21 -6.00). Collected in June and July during varying weather conditions (0.00 - 0.18" 3 days total).

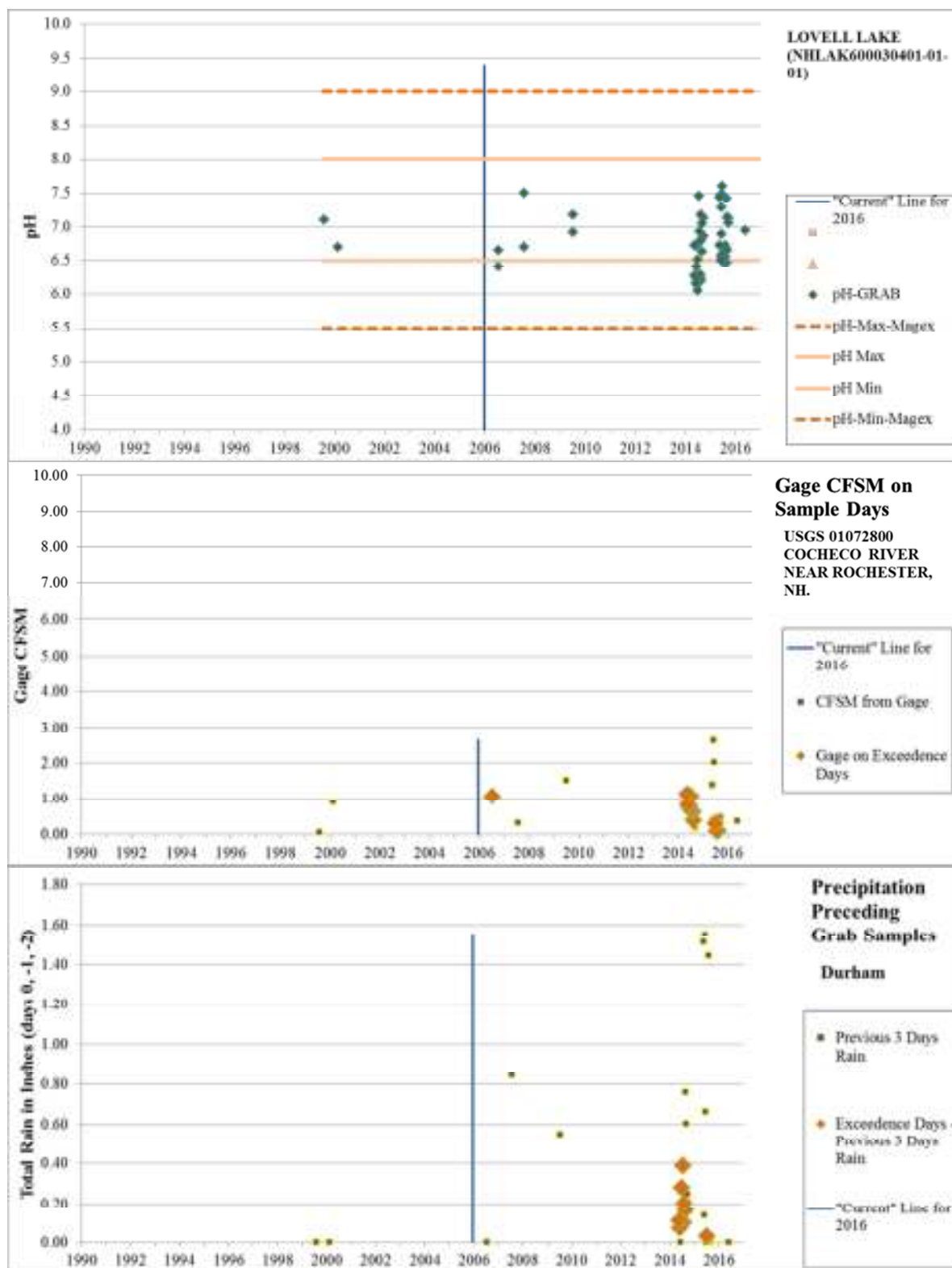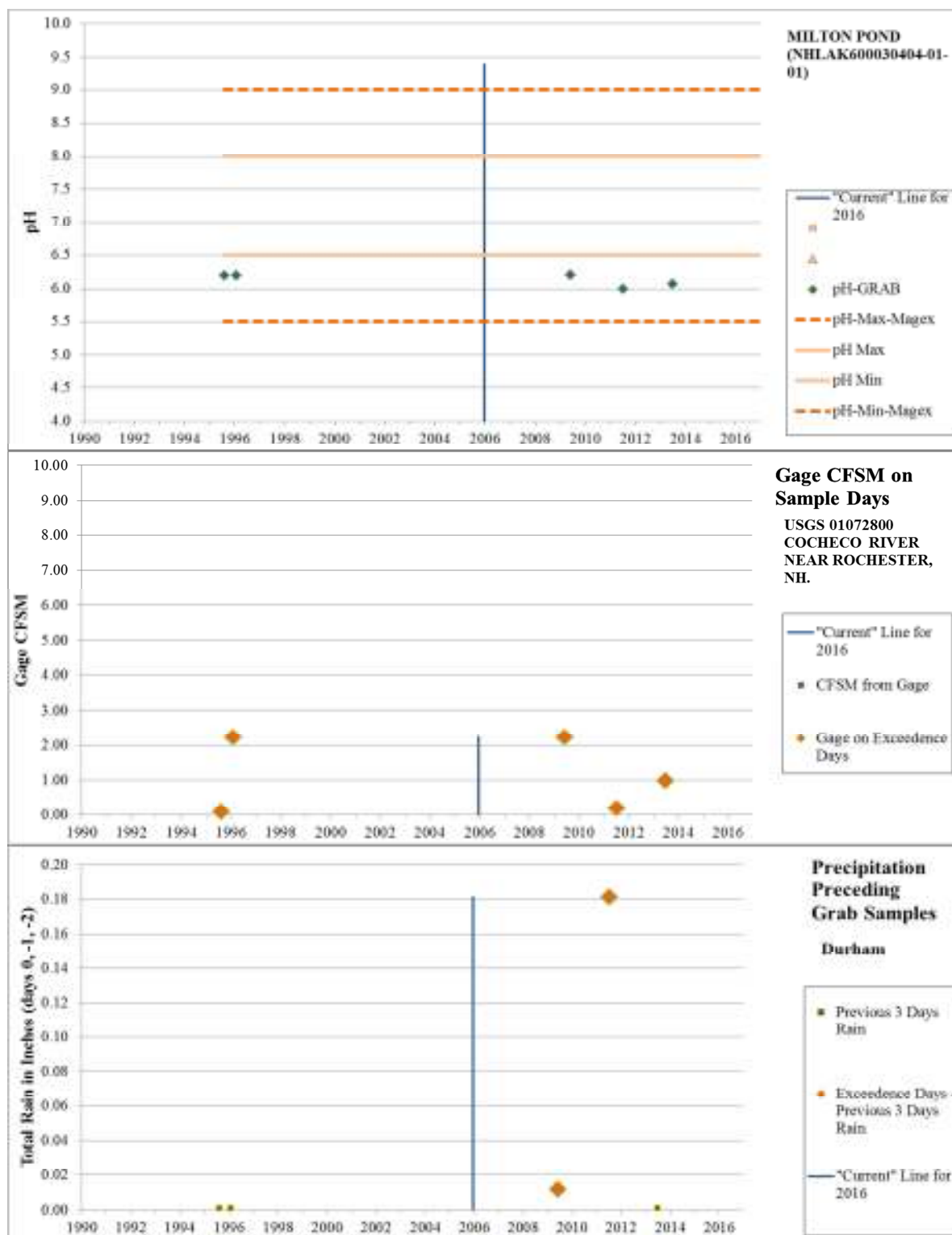Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

SALMON FALLS RIVER - GREAT FALLS UPPER DAM (NHIMP600030405-03)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
SALMON FALLS RIVER - GREAT FALLS UPPER DAM	NHIMP600030405-03	pH	Somersworth	3-ND	5-M

2016: Grab samples from station 12-SFR, indicated impairment for the 2016 cycle. 14 of15 (93%) were below pH 6.5 (values ranged from 6.40 to 5.68). Collection was done during May, June, July, September and November and under various weather conditions, (0.00 - 1.04" rain in 3 day period).
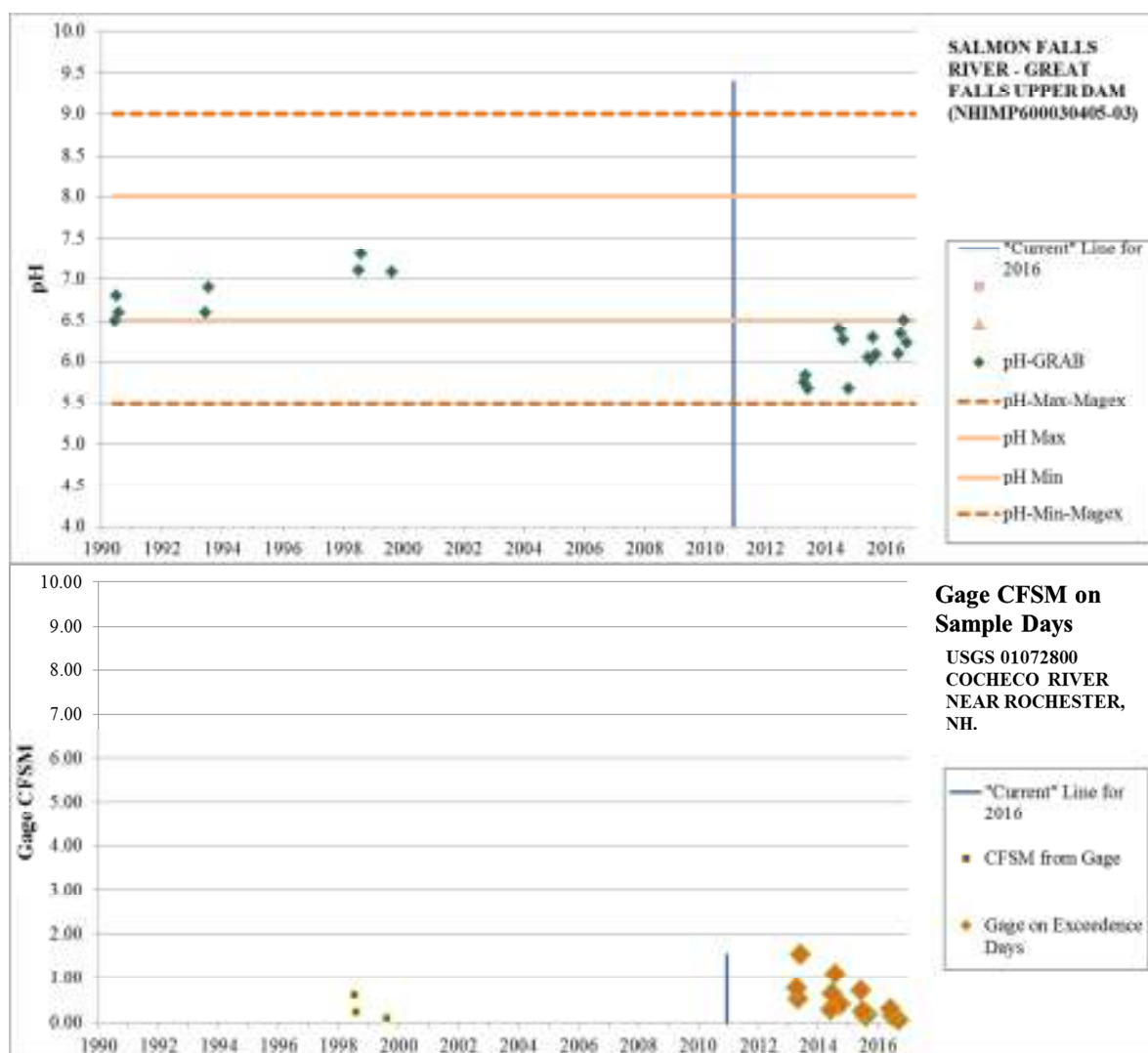
Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
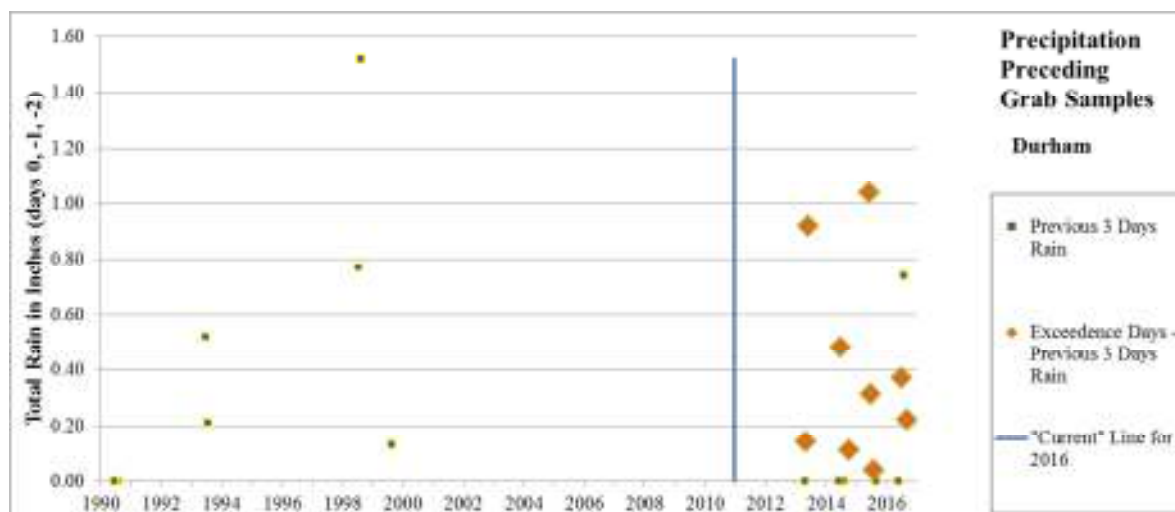
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

ASHUELOT RIVER DAM POND (NHIMP802010301-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
ASHUELOT RIVER DAM POND	NHIMP802010301-02	pH	Keene	3-ND	5-M

2016: Grab and Datalogger day samples from station 19A-ASH indicate impairment for the 2016 cycle. 13 of 13 (100%) were below pH 6.5 (values ranged from 6.30 to 6.14). Collection was done in August and September under various weather conditions (0.00 to 1.72)" of rain in a three day period.

Notes:

  pH-24HR_MIN = pH minimum value from a datalogger deployment.

  pH-24HR_MAX = pH maximum value from a datalogger deployment.

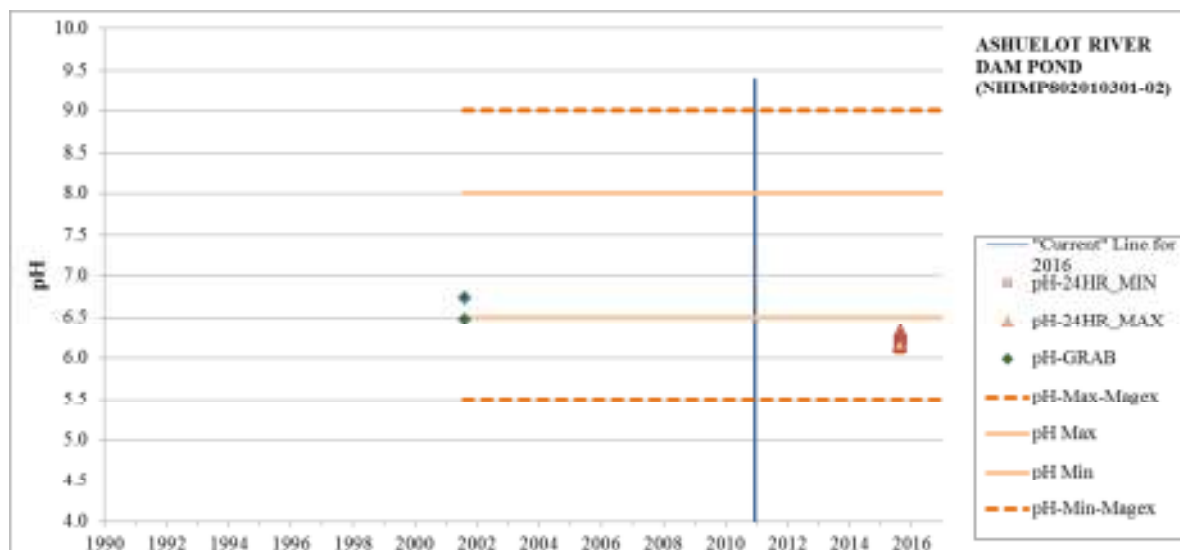 pH-GRAB = pH value from a grab sample.

  "Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
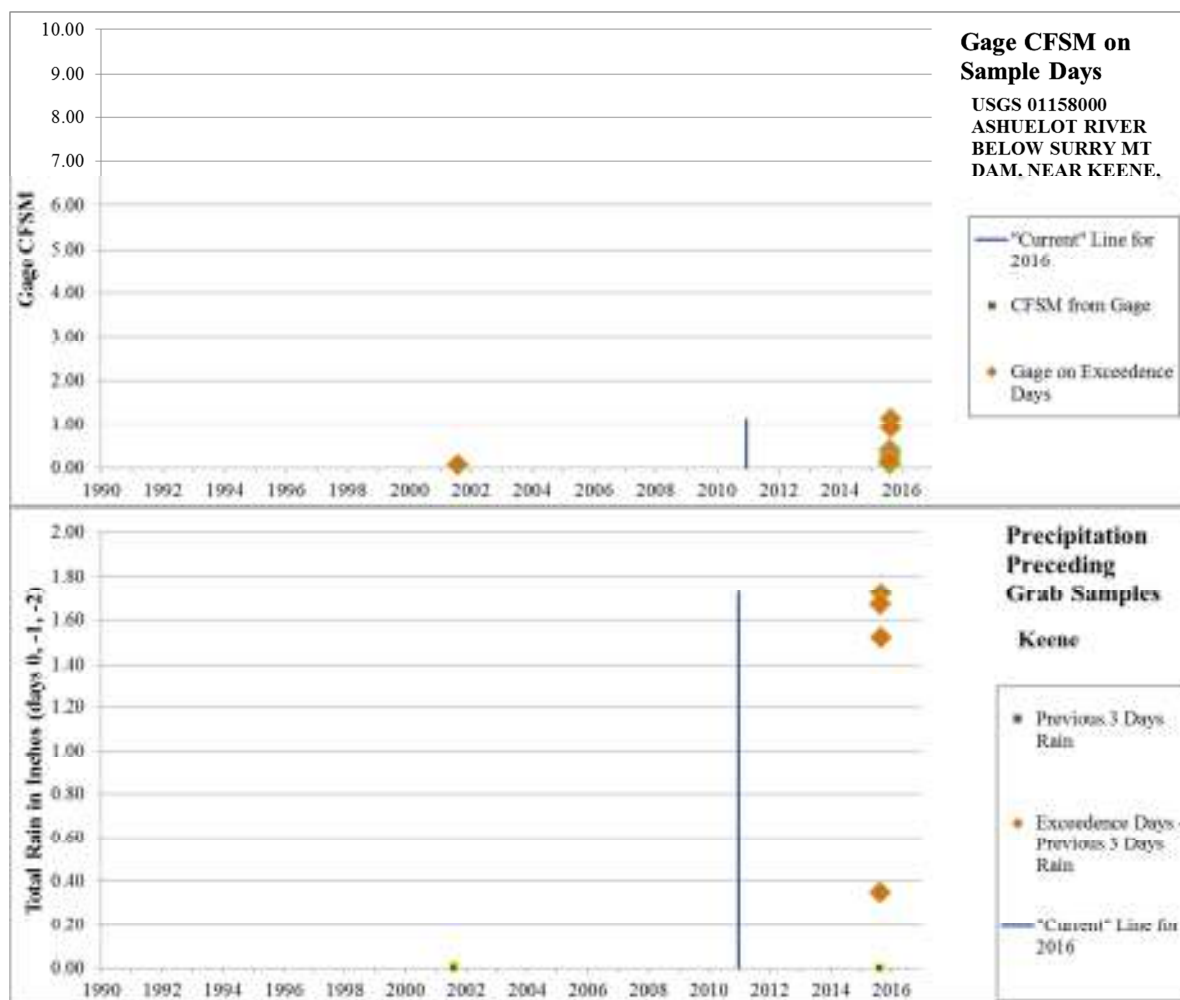
   "Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

TOWNHOUSE POND (NHLAK600030404-01-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
TOWNHOUSE POND	NHLAK600030404-01-02	pH	Milton	3-ND	5-M

2016: Grab sample data collected at station THP03ML, indicate impairment for the 2016 cycle. Three of 3 (100%) of grab samples were below 6.5 (pH values between 6.16 and 5.87). Collected in June and July during varying weather conditions (0.00 - 0.18" rain 3 days total).

TOWNHOUSE POND (NHLAK600030404-01-02)

Gage CFSM on Sample Days

USGS 01072800 COCHECO RIVER NEAR ROCHESTER, NH.

Precipitation Preceding Grab Samples

Durham
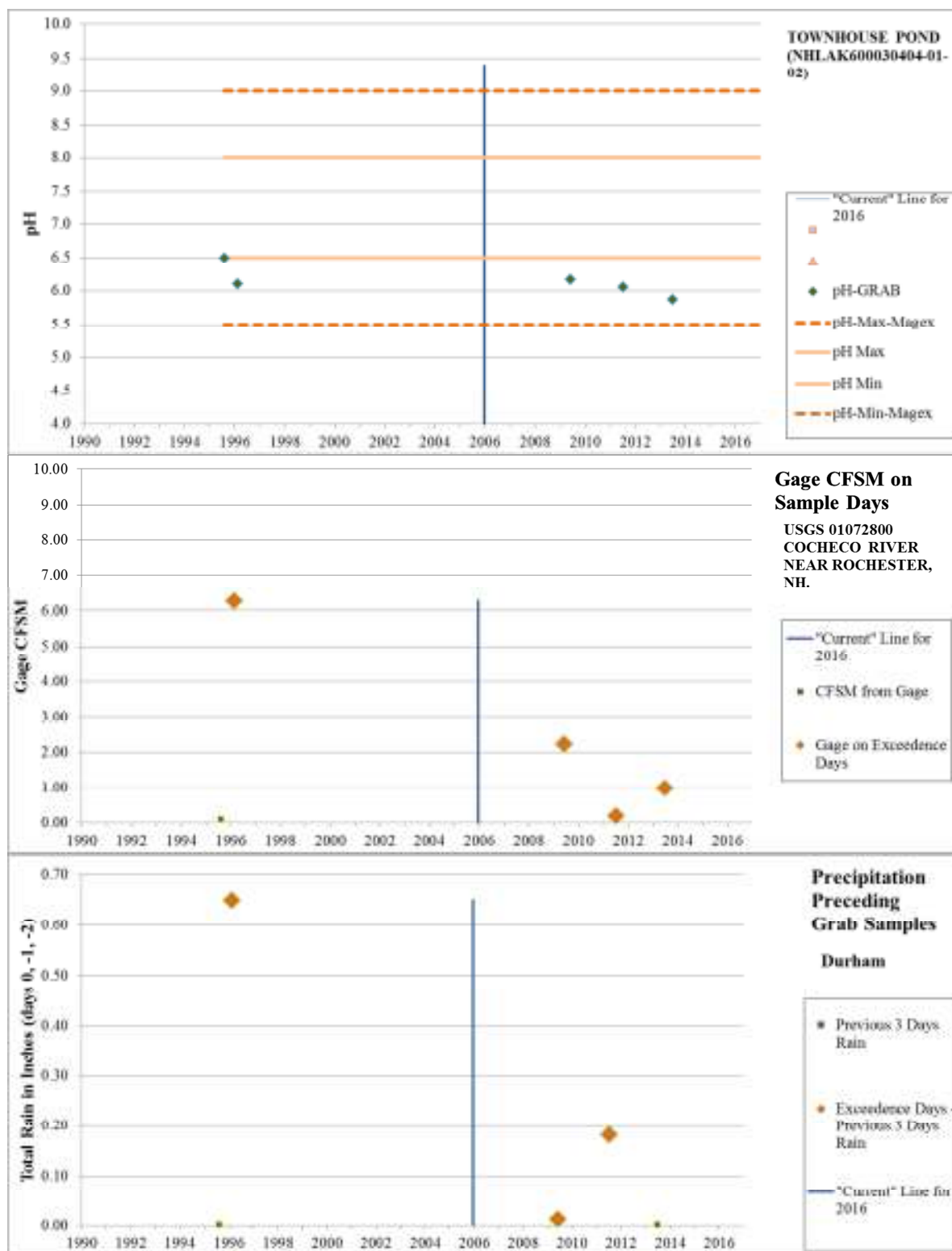
Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

NORTHEAST POND (NHLAK600030404-02)

| Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
NORTHEAST POND	NHLAK600030404-02	pH	Milton	3-ND	5-M

2016: Grab sample data from station NEL01ML indicates impairment for the 2016 cycle. Three of 3 (100%) of grab samples were below 6.5 (pH values between 6.23 -5.89). Collected in June and July under varying weather conditions (0.00 - 0.18" rain 3 days total).
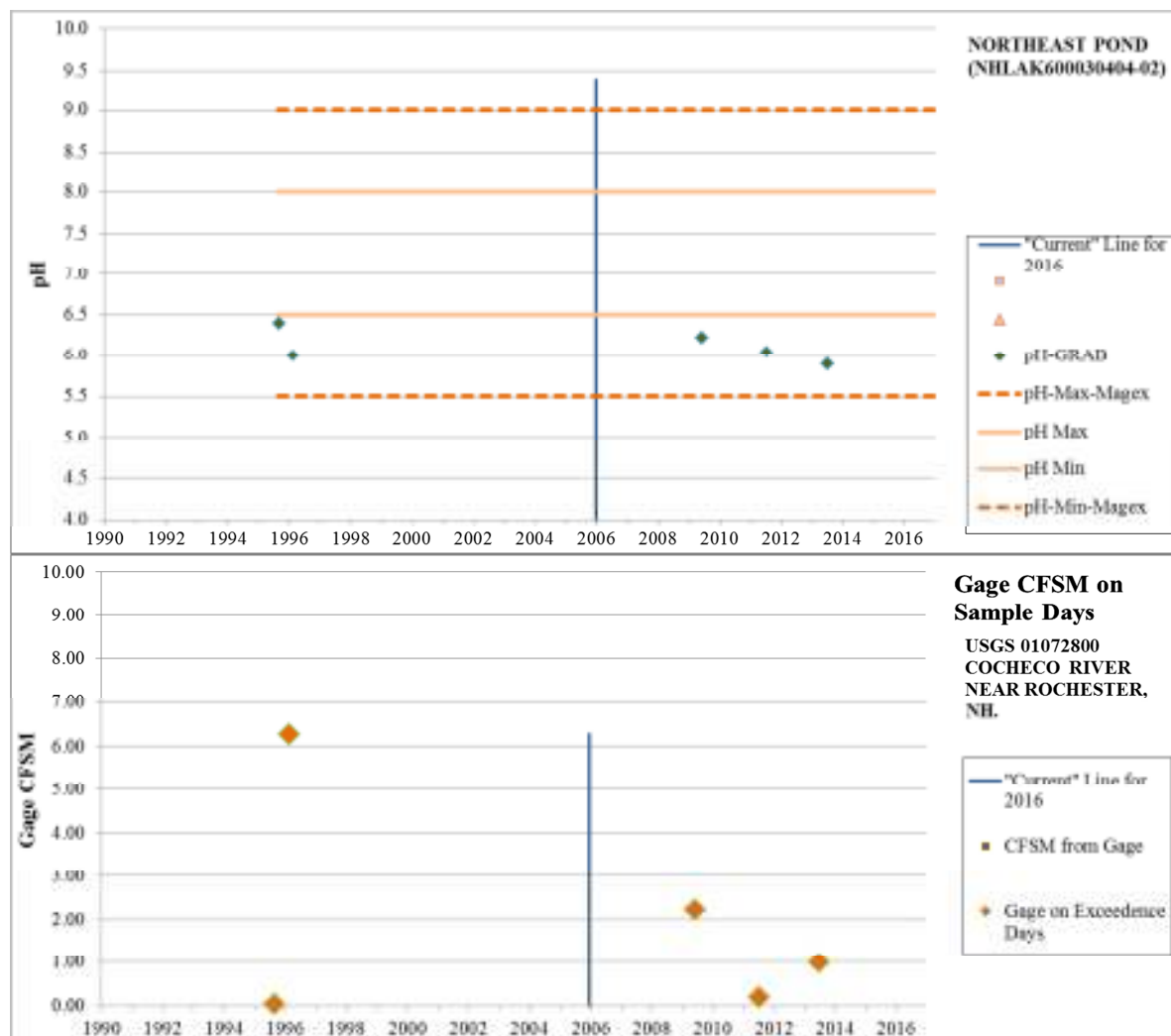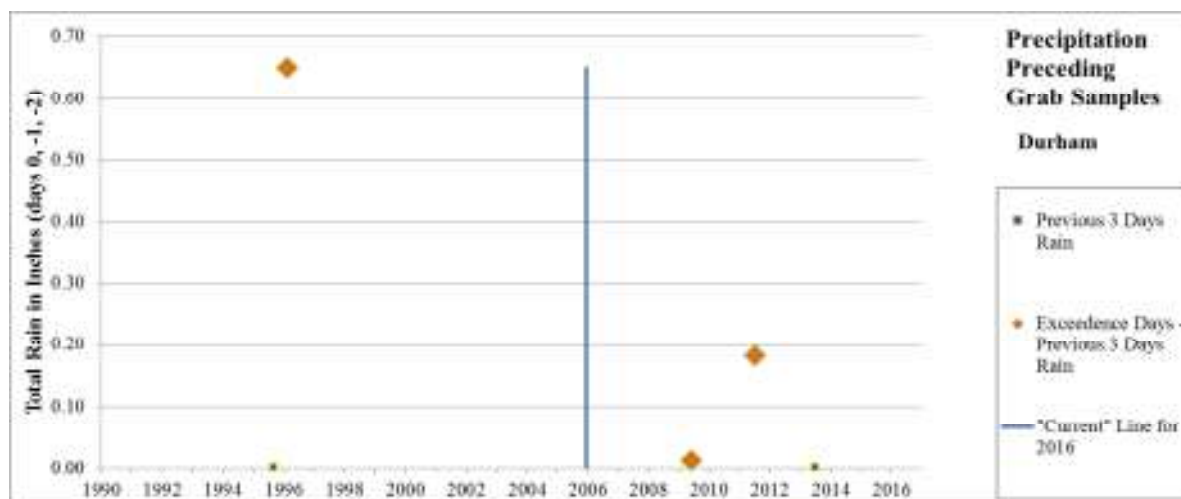
Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
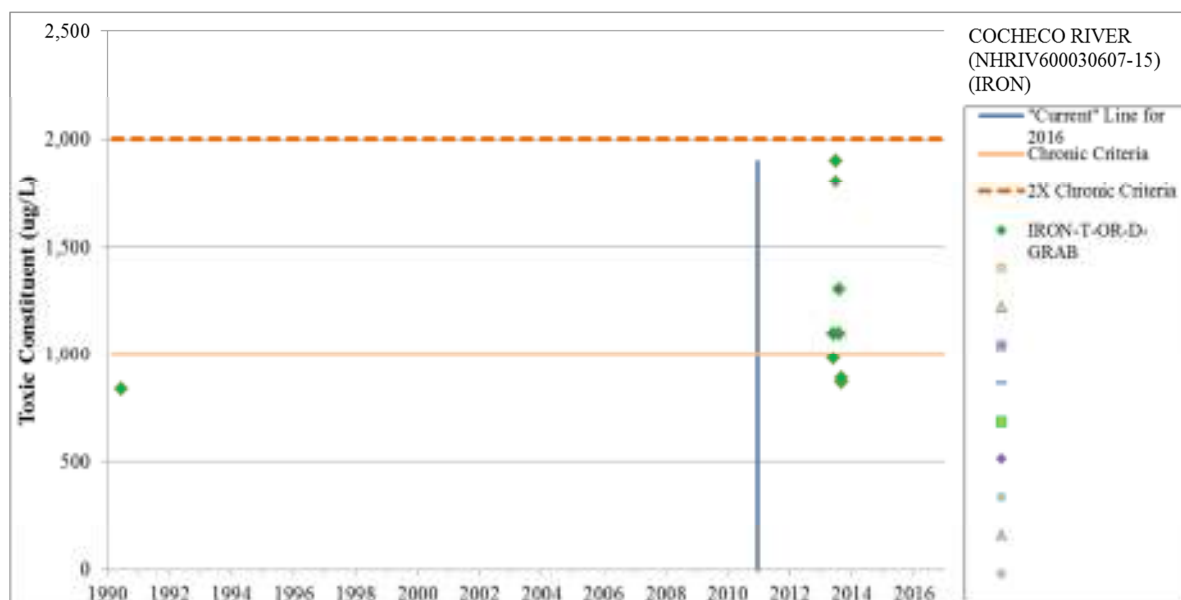
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current" unless. Available older data is provided for context. See the 2016 CALM for additional details.

Toxics

COCHECO RIVER (NHRIV600030607-15)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
COCHECO RIVER	NHRIV600030607-15	Iron	ROCHESTER	3-ND	5-M

2016: Five of eight (63%) samples collected during the current assessment period from 2011 to 2016, at both stations 15P-CCH (below the WWTF outfall) and 16-CCH (above the WWTF outfall) were above the chronic criteria (1,000 ug/L) resulting in a new impairment for this assessment unit during the 2016 cycle. The non-support samples collected during the current assessment period were collected with 3-day rainfall totals between 0.00 – 0.94" and with flows ranging from 0.17 – 1.19 cfsm at the Cocheco River gage (01072800) in June through September.

Gage CFSM on Sample

USGS 01072800 COCHECO RIVER NEAR ROCHESTER, NH.

—— "Current" Line for 2016

■ CFSM from Gage

◆ Gage on Exceedence Days

Precipitation Preceding Samples

Durham

—— "Current" Line for 2016

■ Previous 3 Days Rain

◆ Exceedence Days - Previous 3 Days Rain

pH During Sampling Events

—— "Current" Line for 2016

■ pH

◆ pH when exceedences
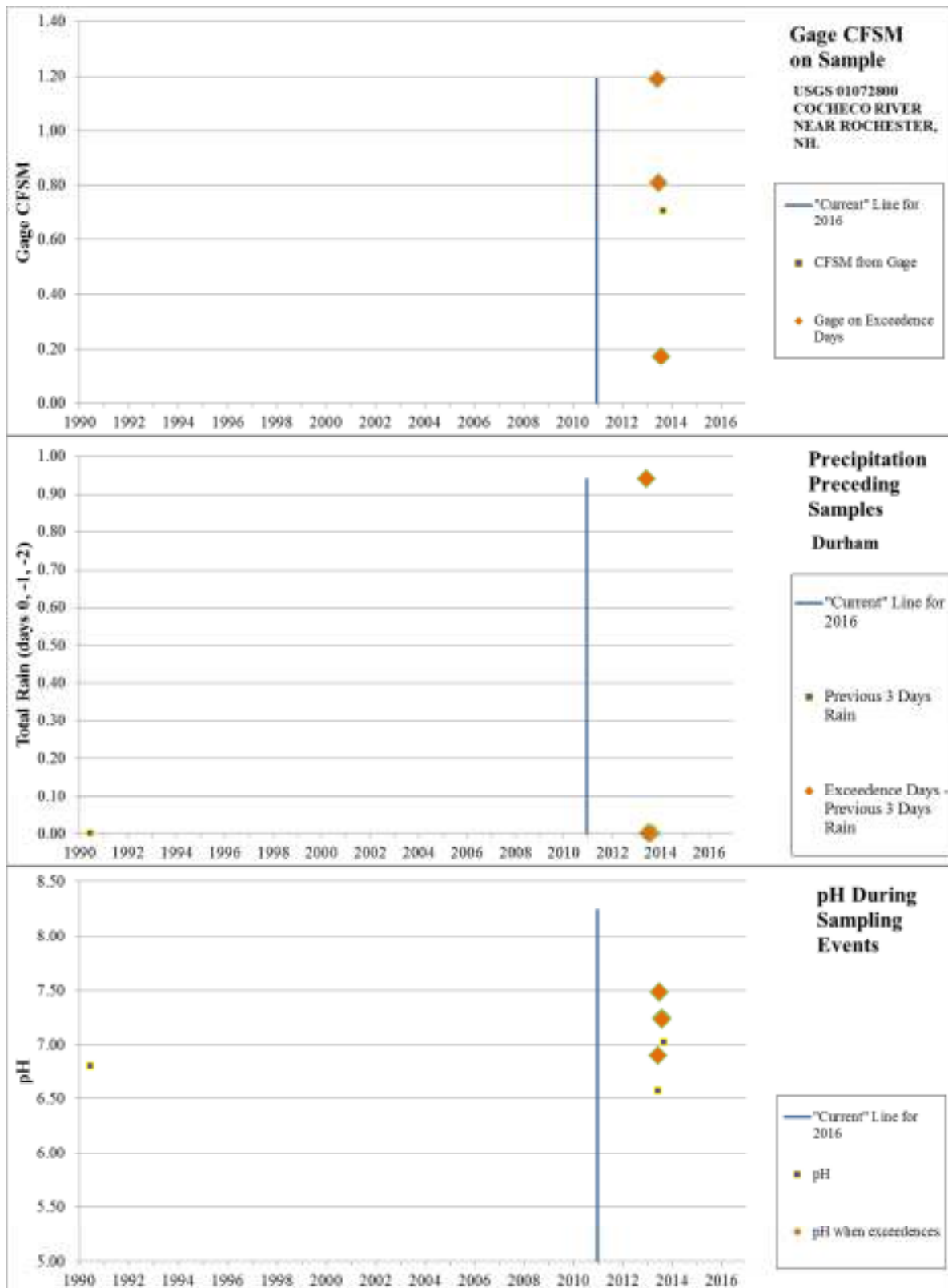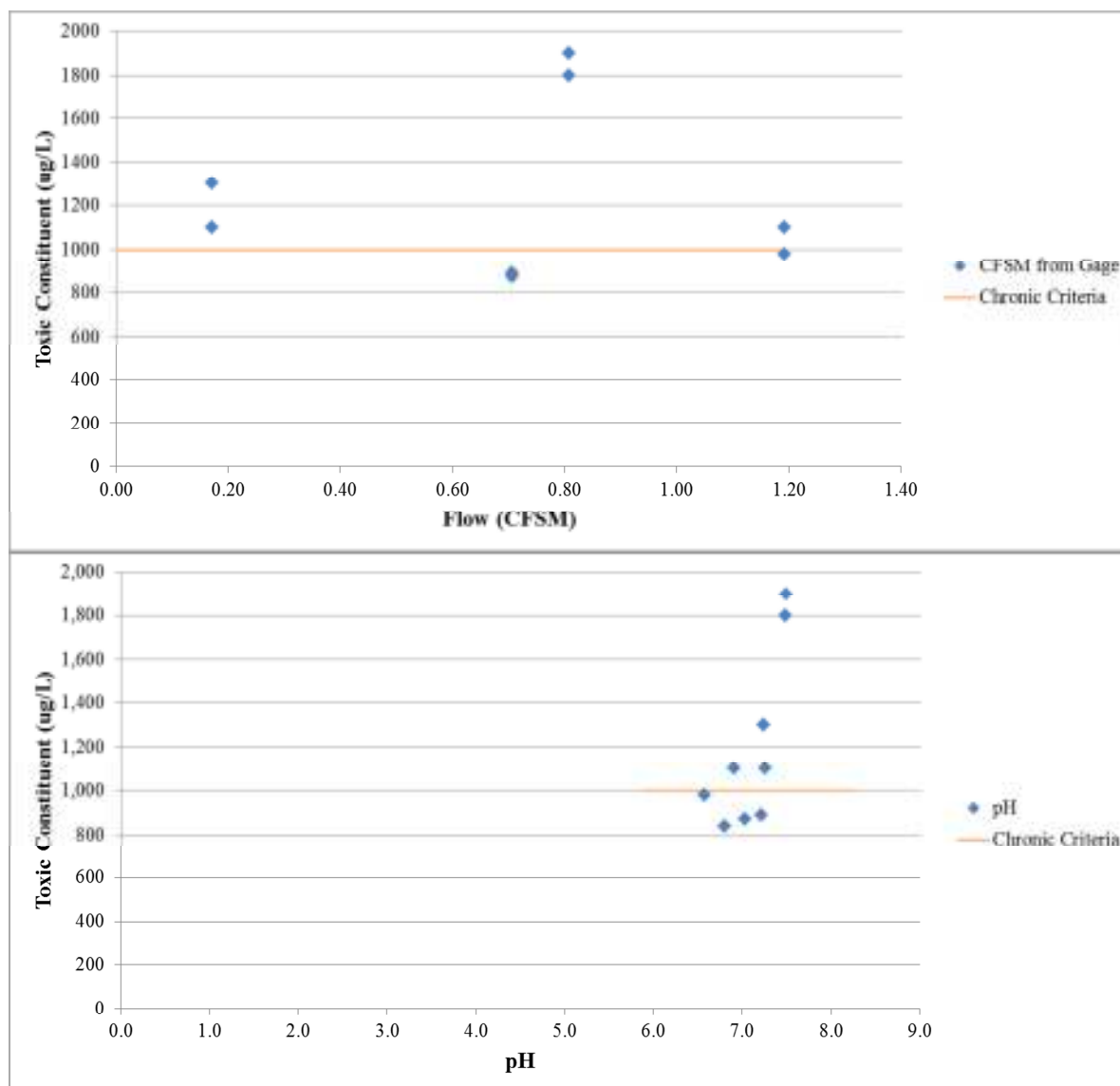
WILD MEADOW BROOK (NHRIV700010702-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
WILD MEADOW BROOK	NHRIV700010702-02	Aluminum	GRAFTON	3-PNS	5-M

2016: 100% (two) of the total aluminum samples collected during the current assessment period from 2011 to 2016, at stations 03T-WIM, were above the chronic criteria (87 ug/L), which by themselves suggest an impairment should be added for this assessment unit during the 2016 cycle. However, on July 1, 2014 NHDES formally clarified to USEPA that the aluminum criteria in the NH surface water quality regulations is acid-soluble aluminum, consistent with USEPA's 1988 ambient water quality criteria document for aluminum. The 2016 station 03T-WIM sampling included concurrent acid-soluble aluminum analysis. The acid-soluble aluminum results were also above the chronic criteria. One of those acid-soluble aluminum samples was 2x the chronic criteria. The samples collected during the current assessment period were collected with 3-day rainfall totals between 0.01 – 0.49" and with flows ranging from 0.35 – 0.54 cfsm at the Baker River gage (01076000) in June and July. This assessment unit will be categorized as 5-M for aluminum for the 2016 cycle.

WILD MEADOW BROOK (NHRIV700010702-02)

"Current" Line for 2016
Chronic Criteria
2X Chronic Criteria
ALUMINUM-T-OR-D-GRAB-C/NC
ALUMINUM-ASA-GRAB-C/NC
TOTAL ALUMINUM WITH PAIRED ASA

Gage CFSM on Sample

USGS 01076000 BAKER RIVER NEAR RUMNEY, NH

"Current" Line for 2016
CFSM from Gage
Gage on Exceedence Days

Precipitation Preceding Samples

Wentworth

"Current" Line for 2016
Previous 3 Days Rain
Exceedence Days - Previous 3 Days Rain

pH During Sampling Events

BEAR BROOK (NHRIV700060503-16)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BEAR BROOK	NHRIV700060503-16	Aluminum	ALLENSTOWN	3-ND	5-P

2016: Five of six (83%) of the total aluminum samples collected during the current assessment period from 2011 to 2016, at station 02-BBO, were above the chronic criteria (87 ug/L), which by themselves suggest an impairment should be added for this assessment unit during the 2016 cycle. However, on July 1, 2014 NHDES formally clarified to USEPA that the aluminum criteria in the NH surface water quality regulations is acid-soluble aluminum, consistent with USEPA's 1988 ambient water quality criteria document for aluminum. Station 02-BBO analysis included concurrent acid-soluble aluminum samples and two of those samples were more than 2x the chronic criteria. Of the two acid-soluble samples that were more than 2x the chronic criteria in 2014 one was collected after a storm event and under elevated flow condition (4.73 cfsm respectively). Both samples occurred during low pH (5.2 and 4.7). The samples collected during the current assessment period were collected with 3-day rainfall totals between 0.00 – 1.47" and with flows ranging from 0.17 – 4.37 cfsm at the Soucook River gage (01089100) in June, July and August. The assessment unit will be categorized as 5-P for the 2016 cycle.
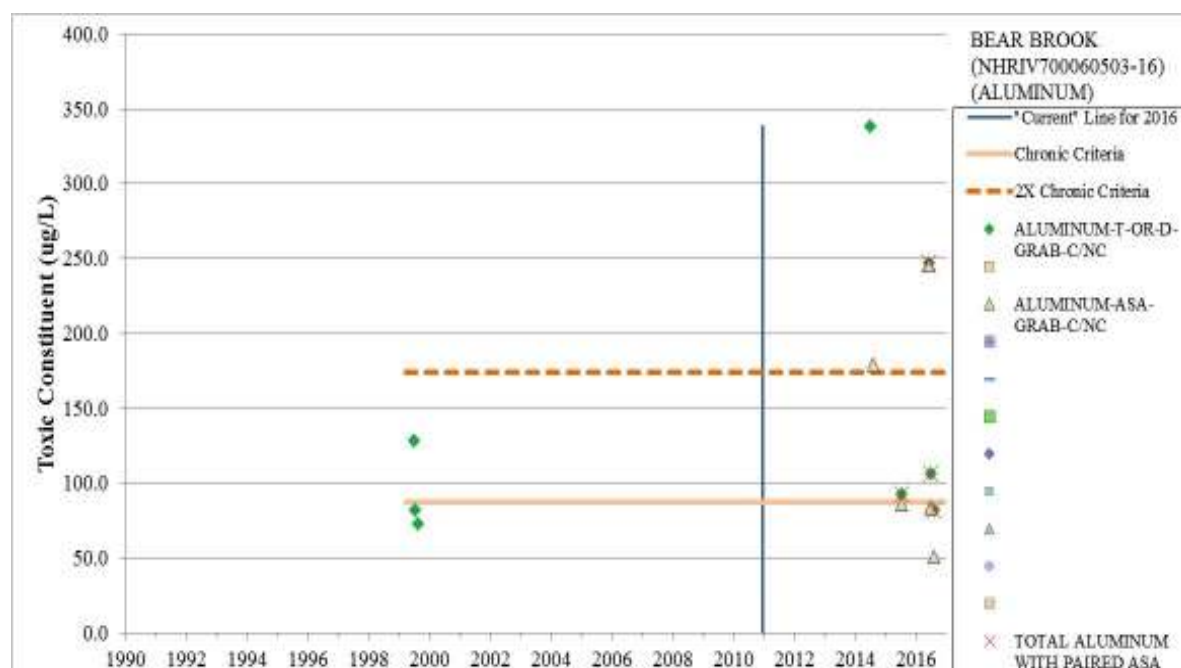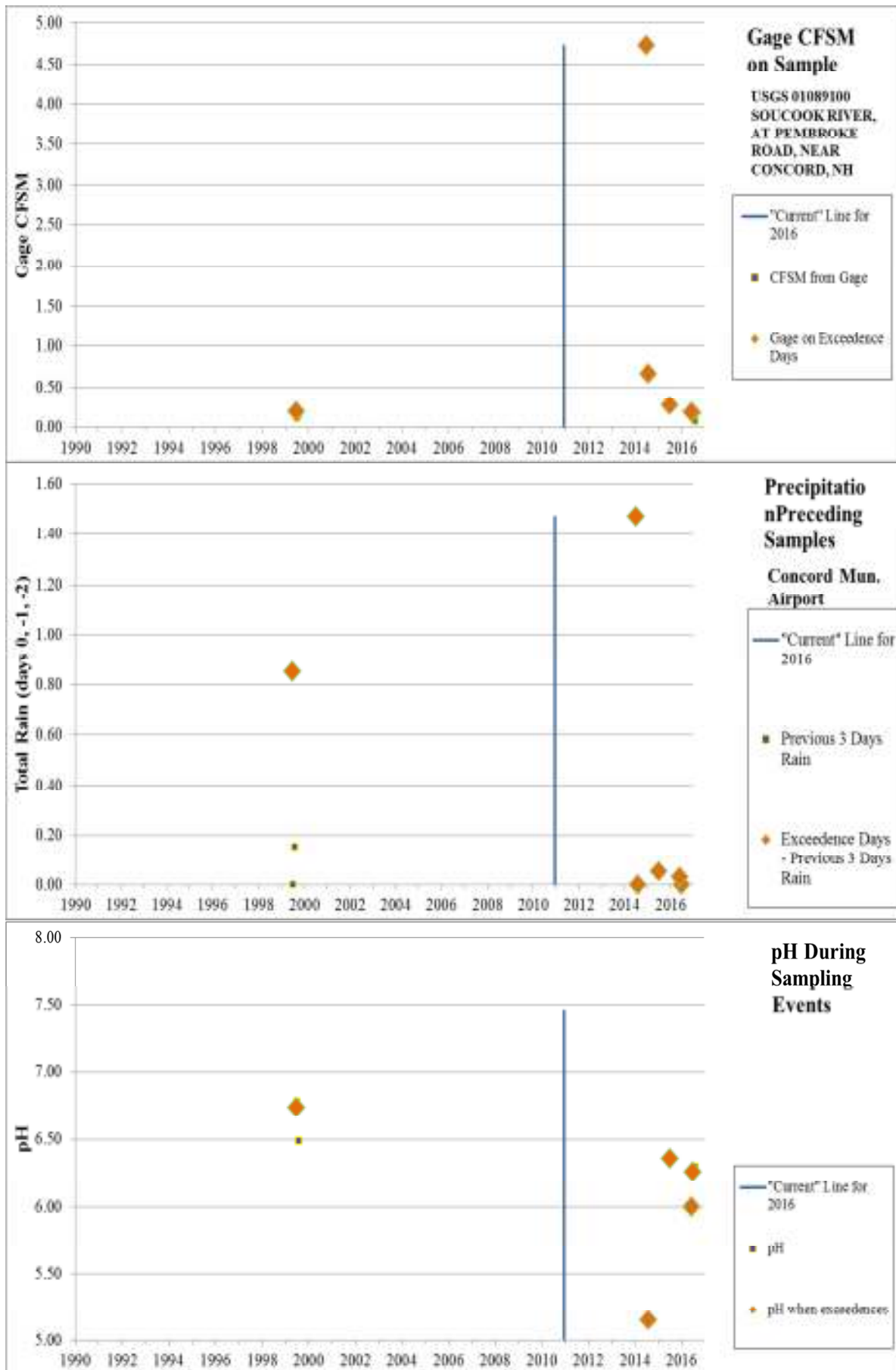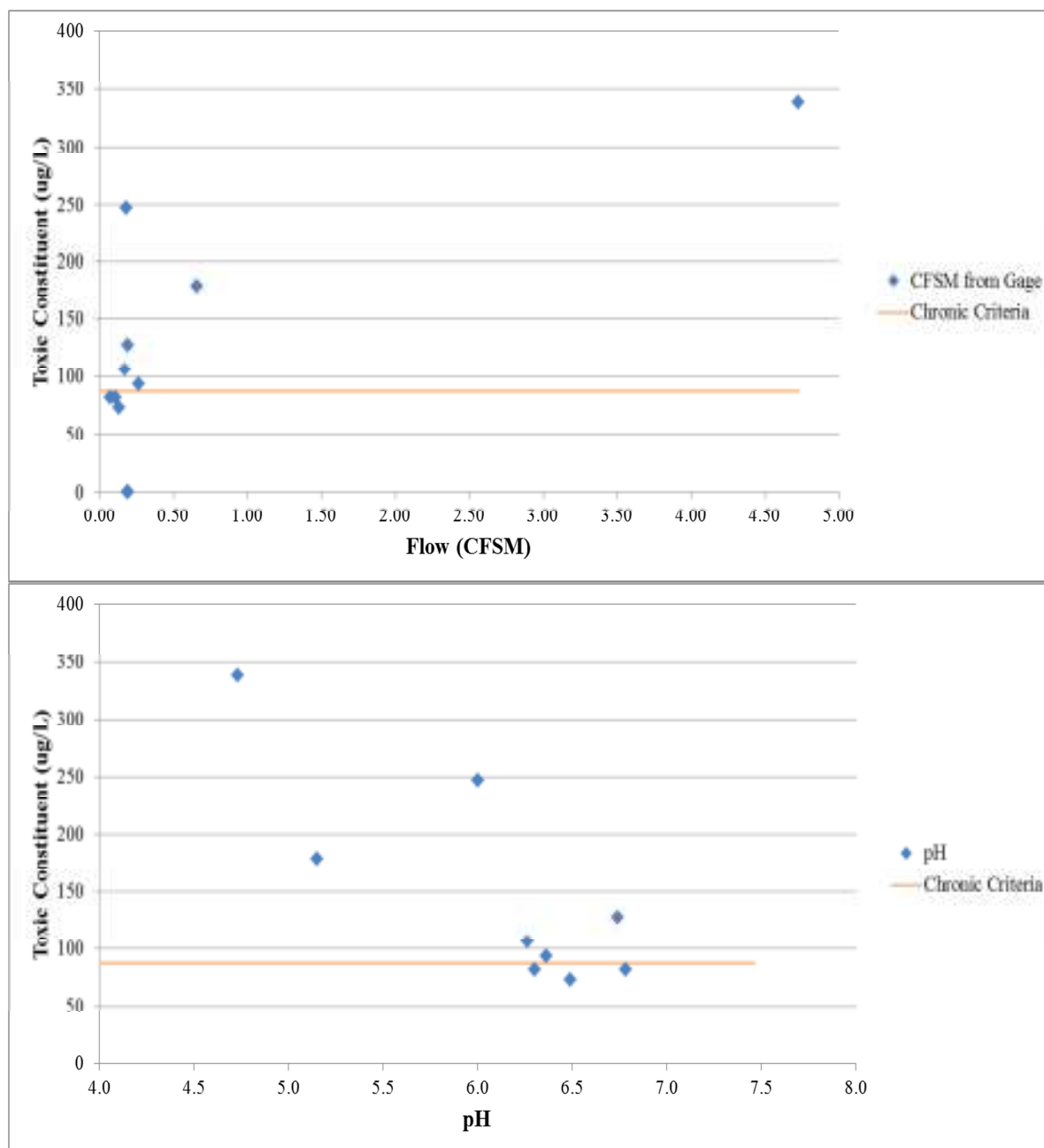
Gage CFSM on Sample

USGS 01089100 SOUCOOK RIVER, AT PEMBROKE ROAD, NEAR CONCORD, NH

— "Current" Line for 2016

■ CFSM from Gage

♦ Gage on Exceedence Days

PrecipitatonPreceding Samples

Concord Mun. Airport

— "Current" Line for 2016

■ Previous 3 Days Rain

♦ Exceedence Days - Previous 3 Days Rain

pH During Sampling Events
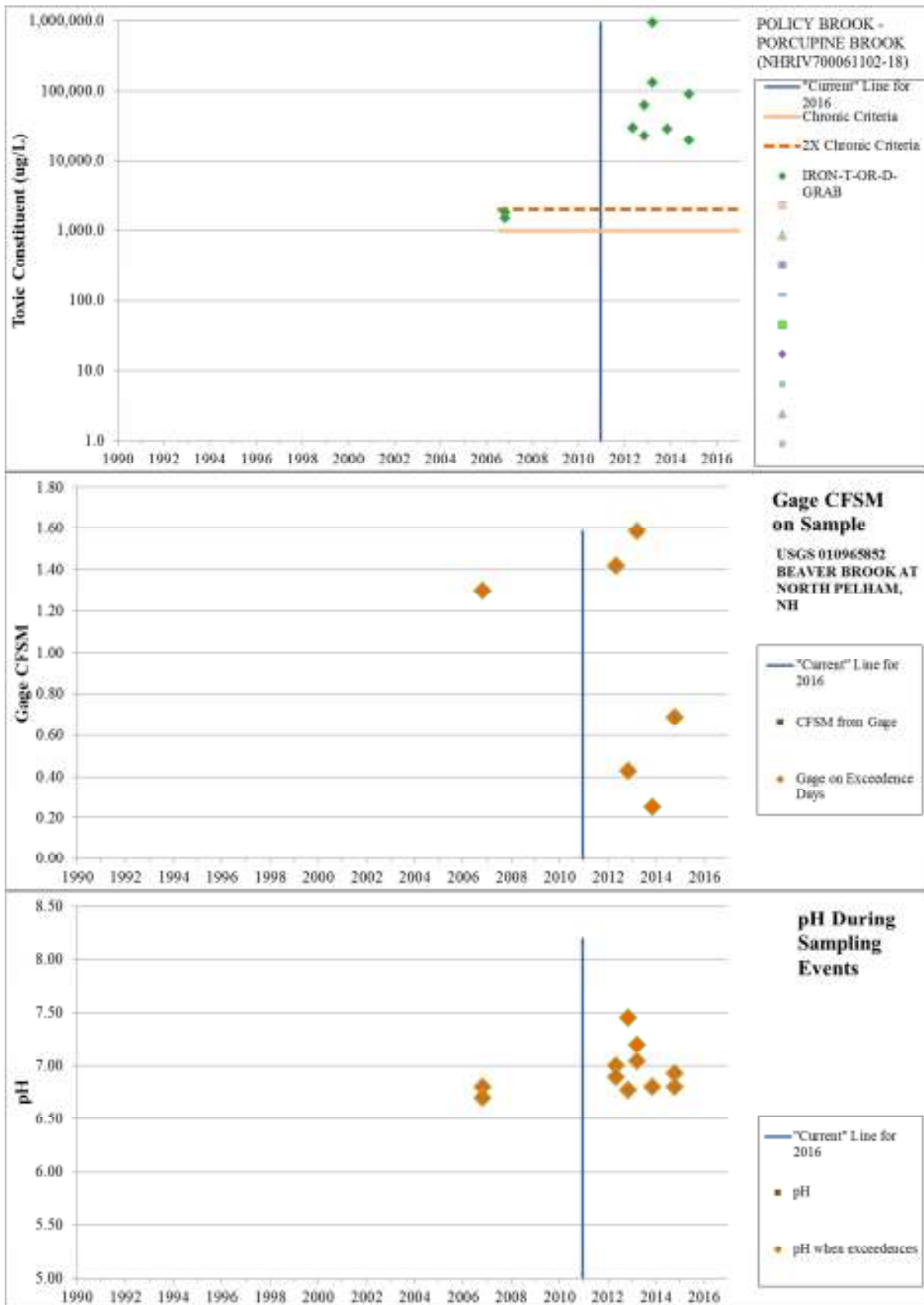
— "Current" Line for 2016

■ pH

♦ pH when exceedences

POLICY BROOK - PORCUPINE BROOK (NHRIV700061102-18)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
POLICY BROOK - PORCUPINE BROOK	NHRIV700061102-18	Iron	SALEM	3-PNS	5-P

2016: Groundwater from the LL&S Construction and Demolition Debris Landfill appears to be impacting surface water, which is a violation of their permit requirements (Permit #: 198405024-S-004). 100% (nine) of the samples collected during the current assessment period from 2011 to 2016, at stations 198405024SW01 and 198405024SW02, were more than 2x above the chronic criteria (1,000 ug/L), some were more than 100x the chronic criteria, resulting in a new impairment for this assessment unit during the 2016 cycle. All of the samples were collected with a 3-day rainfall total of < 0.5" during spring (April/May) and fall (November). The non-support samples collected during the current assessment period were collected with flows ranging from 0.25 – 1.59 cfsm at the Beaver Brook gage (010965852) in April, May and November.
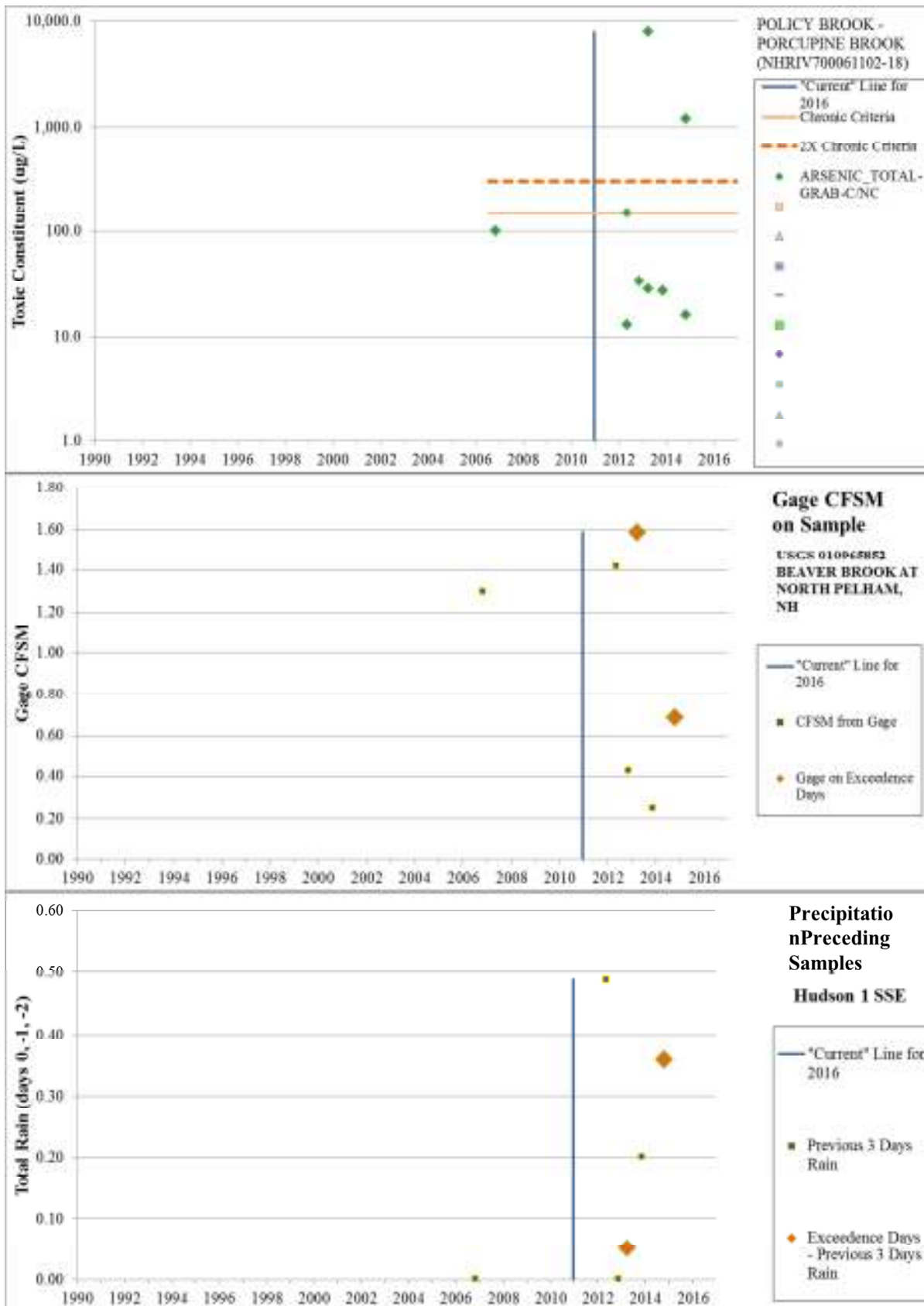
POLICY BROOK - PORCUPINE BROOK (NHRIV700061102-18)

Gage CFSM on Sample

USGS 010965852 BEAVER BROOK AT NORTH PELHAM, NH

pH During Sampling Events

POLICY BROOK - PORCUPINE BROOK (NHRIV700061102-18)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
POLICY BROOK - PORCUPINE BROOK	NHRIV700061102-18	Arsenic	SALEM	3-PNS	5-P

2016: Groundwater from the LL&S Construction and Demolition Debris Landfill appears to be impacting surface water, which is a violation of their permit requirements (Permit #: 198405024-S-004). Two of nine (22%) of the samples collected during the current assessment period from 2011 to 2016, at station 198405024SW01, were more than 2x above the chronic criteria (150 ug/L), some were 10x to nearly 100x the chronic criteria, resulting in a new impairment for this assessment unit during the 2016 cycle. All of the non-support samples were collected with a 3-day rainfall total of < 0.5" during spring (April) and fall (November). The non-support samples collected during the current assessment period were collected with flows ranging from 0.69 – 1.59 cfsm at the Beaver Brook gage (010965852) in April, May and November.
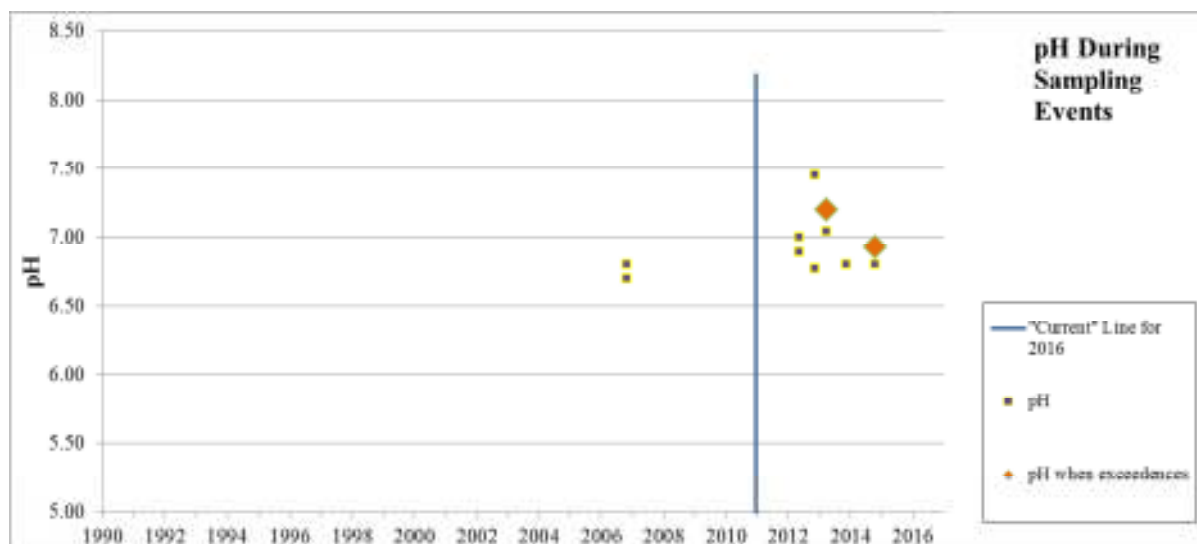
POLICY BROOK -
PORCUPINE BROOK
(NHRIV700061102-18)

"Current" Line for 2016
Chronic Criteria
2X Chronic Criteria
ARSENIC_TOTAL-GRAB-C/NC

Gage CFSM on Sample

USGS 010965852
BEAVER BROOK AT NORTH PELHAM, NH

"Current" Line for 2016
CFSM from Gage
Gage on Exceedence Days

Precipitatio nPreceding Samples

Hudson 1 SSE

"Current" Line for 2016
Previous 3 Days Rain
Exceedence Days - Previous 3 Days Rain

AMMONOOSUC RIVER - UNNAMED BROOK (NHRIV801030403-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
AMMONOOSUC RIVER - UNNAMED BROOK	NHRIV801030403-01	Aluminum	BETHLEHEM	3-ND	5-M

2016: 100% (six) of the total aluminum samples collected during the current assessment period from 2011 to 2016, at station 22-AMM, were above the chronic criteria (87 ug/L), which by themselves suggest an impairment should be added for this assessment unit during the 2016 cycle. However, on July 1, 2014, NHDES formally clarified to USEPA that the aluminum criteria in the NH surface water quality regulations is acid-soluble aluminum, consistent with USEPA's 1988 ambient water quality criteria document for aluminum. Station 22-AMM analysis included some concurrent acid-soluble aluminum samples and two were still above the chronic criteria. The samples collected during the current assessment period were collected with 3-day rainfall totals between 0.00 – 1.72" and with flows ranging from 0.84 – 3.12 cfsm at the Ammonoosuc River gage (01137500) in June, July and August. The assessment unit will be categorized as 5-M for the 2016 cycle.
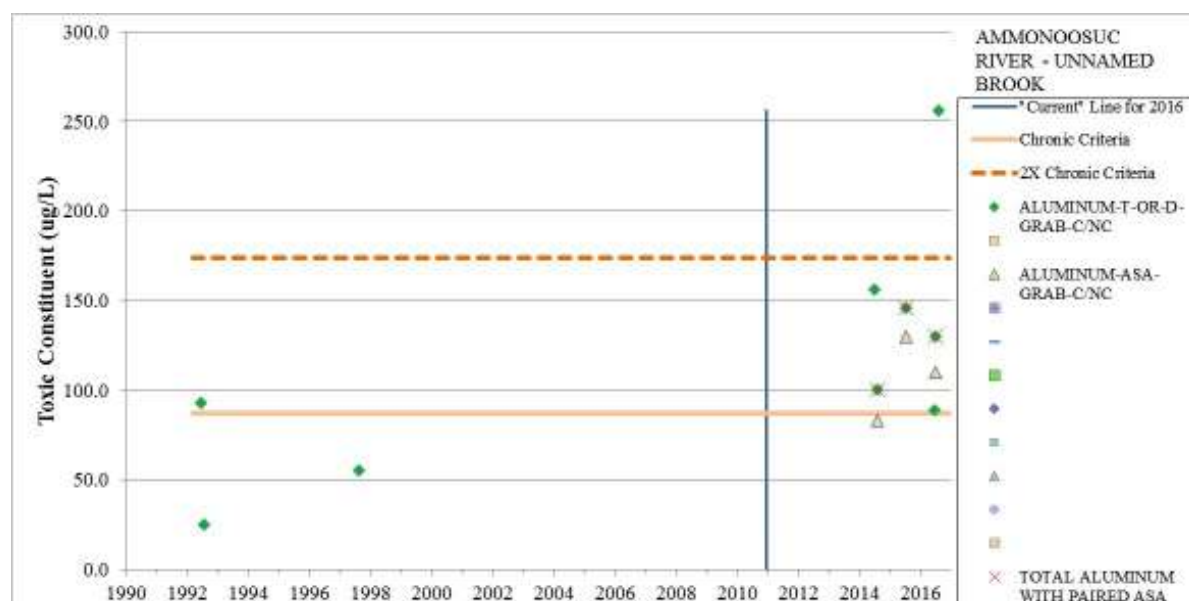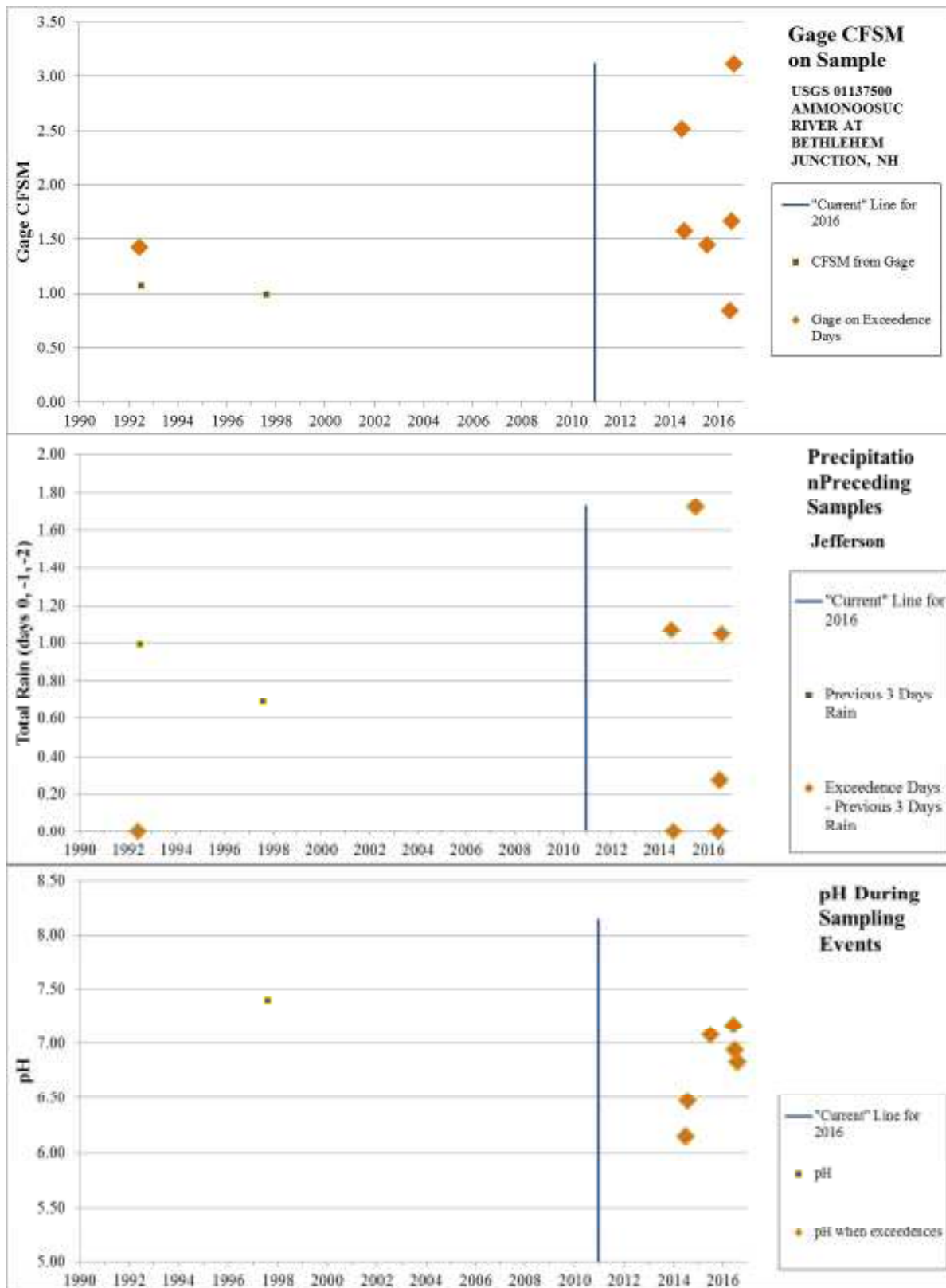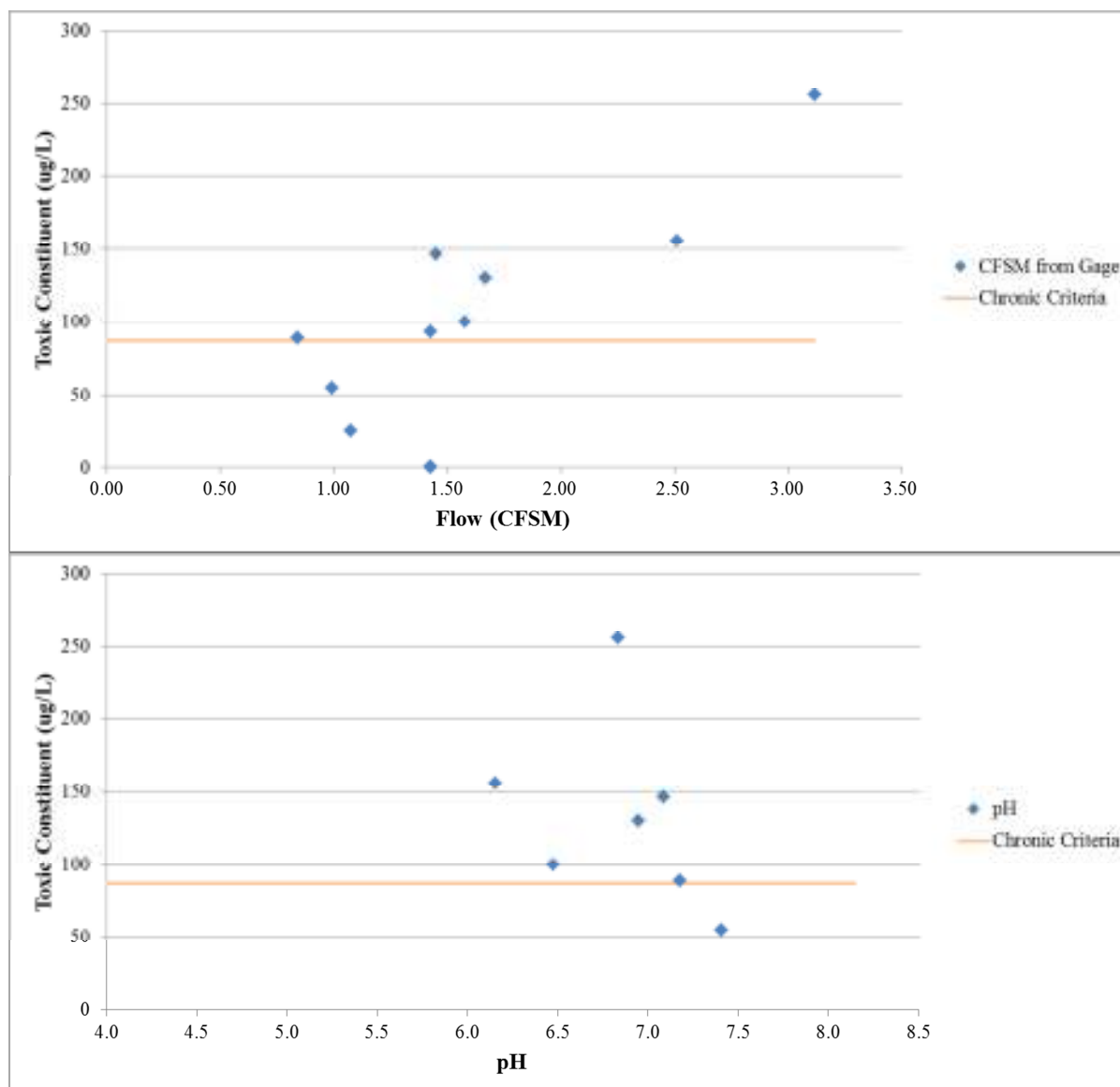
TULLY BROOK - UNNAMED BROOKS (NHRIV802020203-05)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
TULLY BROOK - UNNAMED BROOKS	NHRIV802020203-05	Aluminum	RICHMOND	3-ND	5-P

2016: 100% (six) of the total aluminum samples collected during the current assessment period from 2011 to 2016, at station 01-TYB, were above the chronic criteria (87 ug/L), which by themselves suggest an impairment should be added for this assessment unit during the 2016 cycle. However, on July 1, 2014 NHDES formally clarified to USEPA that the aluminum criteria in the NH surface water quality regulations is acid-soluble aluminum, consistent with USEPA's 1988 ambient water quality criteria document for aluminum. Station 01-TYB analysis included some concurrent acid-soluble aluminum samples that were above chronic criteria. Four of those acid-soluble aluminum samples were more than 2x the chronic criteria. The samples collected during the current assessment period were collected with 3-day rainfall totals between 0.00 – 0.84" and with flows ranging from 0.12 – 0.96 cfsm at the Contoocook River gage (01082000) in June, July and August. The assessment unit will be categorized as 5-P for the 2016 cycle.
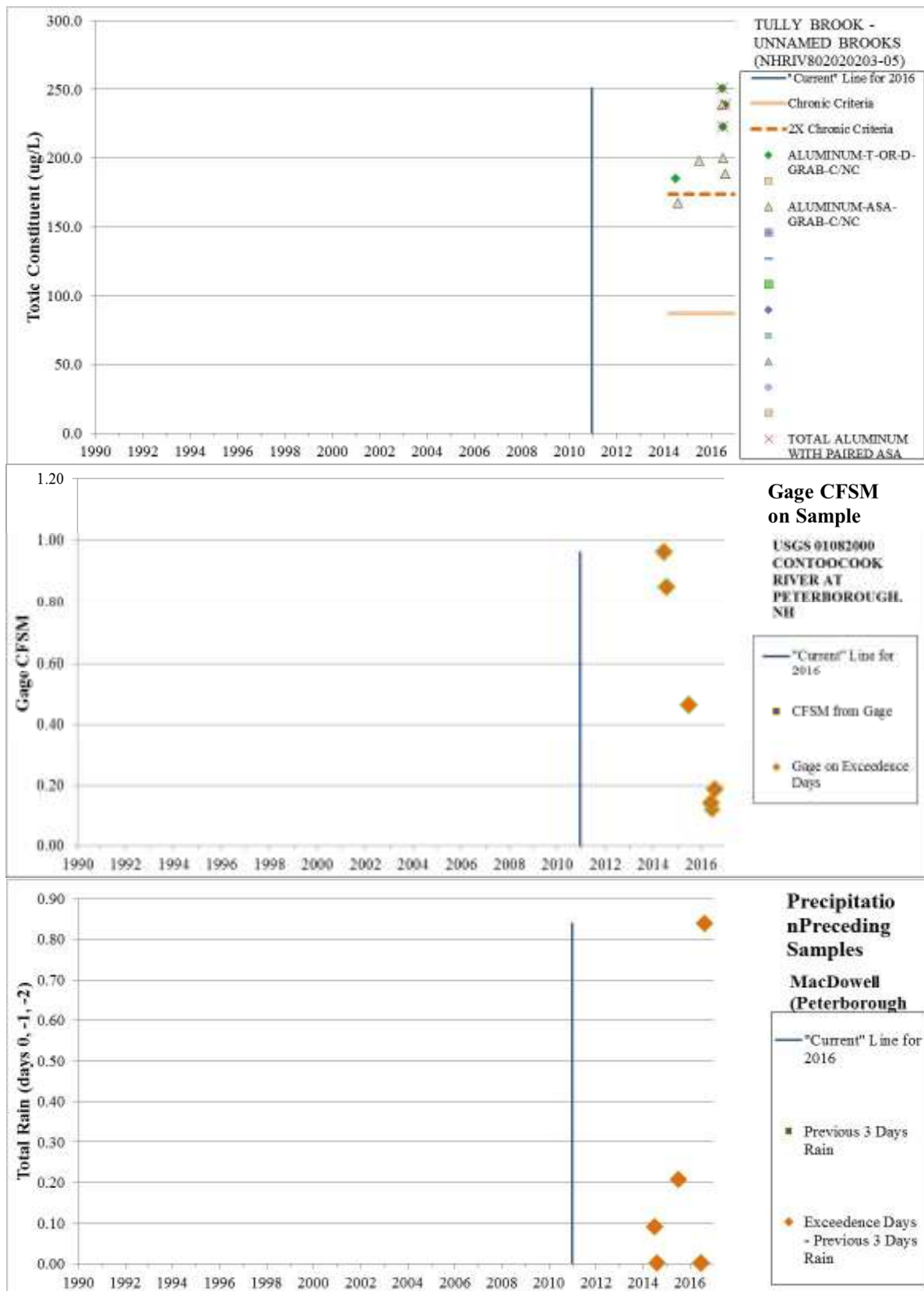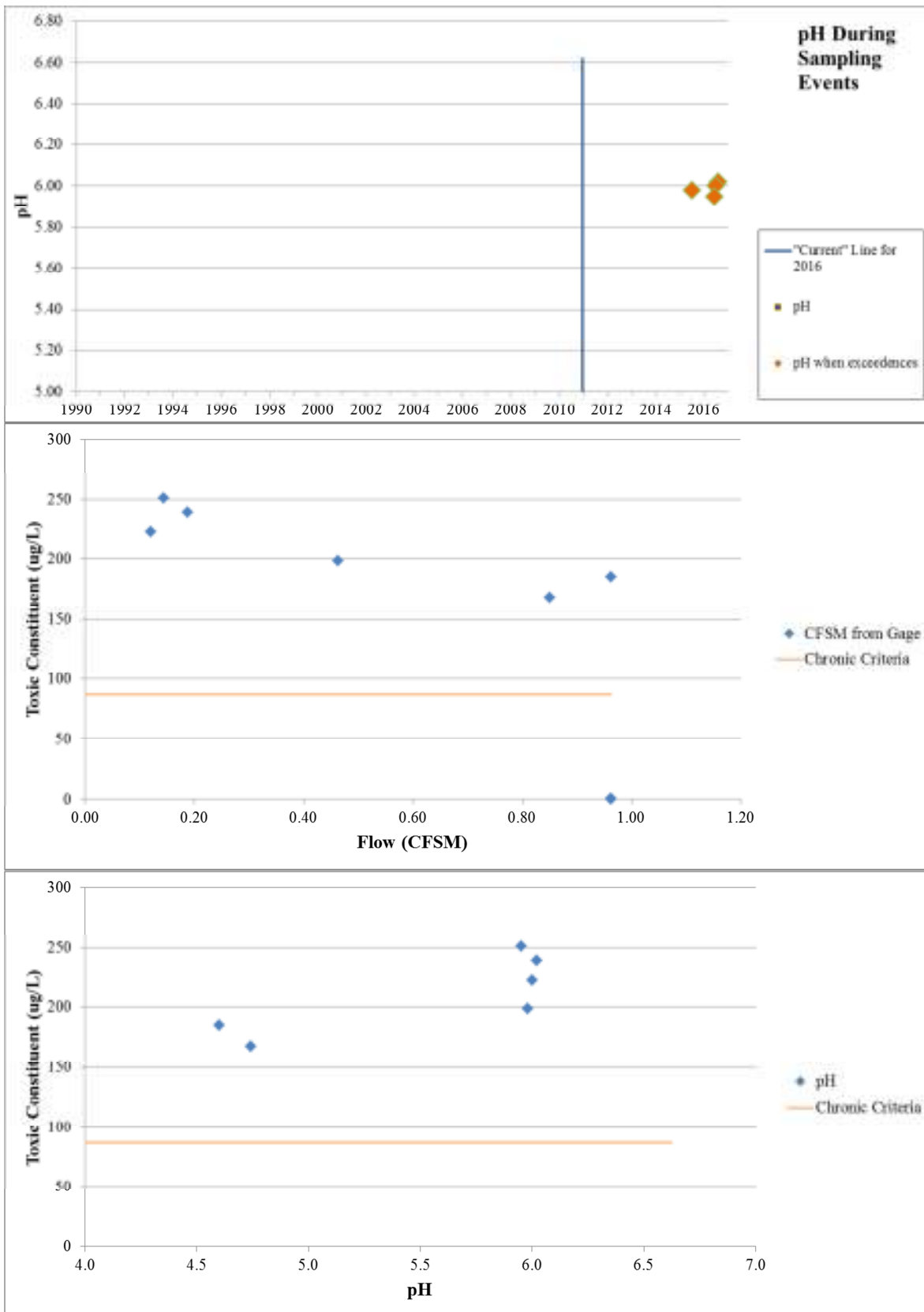
Macroinvertebrates

ISINGLASS RIVER (NHRIV600030607-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
ISINGLASS RIVER	NHRIV600030607-01	Benthic-Macroinvertebrate Bioassessments (Streams)	BARRINGTON	3-PNS	5-M

Three macroinvertebrate samples were collected, one per year from 2013-2015, at station 07T-ISG on assessment unit NHRIV600030607-01. To meet water quality standards for aquatic life use, a benthic index of biotic integrity (B-IBI) threshold of 53.1 should be achieved. B-IBI scores were 41.6 (9/16/13), 52.9 (9/26/14) and 52.0 (9/29/15). Since all three B-IBI scores were below the B-IBI threshold, this segment of the Isinglass River has been assessed as impaired (5-M).

Station ID	Activity ID	Waterbody Name	Collection Date	Threshold	NH B-IBI Site Score
07T-ISG	BEN-07T-ISG-01	Isinglass River	16-Sep-13	59	41.6
07T-ISG	BEN-07T-ISG-02	Isinglass River	26-Sep-14	59	52.9
07T-ISG	BEN-07T-ISG-03	Isinglass River	29-Sep-15	59	52.0